

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

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

R.06-04-009 & 07-OIIP-01

**COMMENTS ON THE MARKET ADVISORY
COMMITTEE REPORT OF THE
ENERGY PRODUCERS AND USERS COALITION AND THE
COGENERATION ASSOCIATION OF CALIFORNIA**

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The Energy Producers and Users Coalition¹ and the Cogeneration Association of California² (jointly, EPUC/CAC) submit the following comments on the Market Advisory Committee Report. The comments are submitted pursuant to the July 19, 2007 Administrative Law Judge's Ruling.

I. OVERVIEW.

The Commission seeks comments on the First-Seller approach for greenhouse gas (GHG) emissions in the electricity sector, which was advanced in the Market Advisory Committee's (MAC) Recommendation for Designing a Greenhouse Gas Cap-and-Trade System for California (MAC Report). The First-

¹ EPUC is an ad hoc group representing the electric end use and customer generation interests of the following companies: Aera Energy LLC, BP West Coast Products LLC, Chevron U.S.A. Inc., ConocoPhillips Company, ExxonMobil Power and Gas Services Inc., Shell Oil Products US, THUMS Long Beach Company, Occidental Elk Hills, Inc., and Valero Refining Company – California

² CAC represents the power generation, power marketing and cogeneration operation interests of the following entities: Coalinga Cogeneration Company, Mid-Set Cogeneration Company, Kern River Cogeneration Company, Sycamore Cogeneration Company, Sargent Canyon Cogeneration Company, Salinas River Cogeneration Company, Midway Sunset Cogeneration Company and Watson Cogeneration Company.

Seller approach cannot be considered in a vacuum, but must be evaluated against a range of other options to determine its merit. Consequently, EPUC/CAC first discuss the merits of several options, including a Hybrid Approach that would impose a source-based mitigation on in-state generation and a load-based mitigation on imports. Following that general discussion of options, these comments respond directly to the questions posed by the Administrative Law Judge (ALJ), which include consideration of the Load Based approach, and the relative merits of a Hybrid model.

The MAC assessed the First Seller approach, along with the Load-Based approach, in terms of each model's ability to meet key objectives: (1) environmental integrity; (2) accurate measurement, monitoring and reporting; (3) balanced impacts on consumer prices and economic efficiency; (4) cost-effectiveness; (5) ability to promote low-cost emission-reduction strategies; (6) ability to serve as a model for, or interface with, GHG programs in other jurisdictions and (7) legal sufficiency. The MAC concluded that the First Seller approach best served these objectives in light of *"its relative simplicity and ease of emissions accounting"* and its ability to serve as a model and *"to link easily with an international system...."* EPUC/CAC agree with the MAC conclusion; the First-Seller approach is preferable to the Load Based approach when viewed from a policy and implementation perspective.

However, as the MAC discovered in reviewing these two alternatives, it is impossible to design a problem-free model. The design difficulty stems from the AB 32 mandate that the GHG program address not only in-state generation

sources, but imports of electricity as well. The prevailing wisdom is that without addressing imports, the effectiveness of California's ability to produce real emissions reductions is arguably threatened by leakage. California must be mindful of this need to address imports, but recognize that the challenge of addressing imports arises in any model. California thus should not let the tail wag the dog toward a contorted market design that will prove less than optimal in the long-run.

With these thoughts in mind, EPUC/CAC encourage the Commission to further develop a First Seller approach and reconsider a Hybrid approach. Under either approach, California could maximize source-based regulation of in-state generating resources. The benefits of maximizing direct, in-state regulation lie in the policy realm. An approach that maximizes source-based regulation:

- Achieves the most direct control over emissions, maximizing the potential for accurate monitoring and targeting of these sources;
- Directly aligns incentives, placing compliance responsibility on the party with the greatest ability to alter behavior and make investment decisions to achieve emissions reductions;
- Provides for greater transparency and liquidity in the market for carbon allowances;
- Holds the greatest potential for linkage with other national and international programs and facilitates simple adaptation when regulation expands to a regional program.

While the First Seller and the Hybrid approaches are more compelling from a policy standpoint, they require more rigorous evaluation for potential legal challenge. However, the likelihood of success for a challenge of either the First Seller or Hybrid approach is low, as EPUC/CAC's legal analysis below suggests.

There are two points that should drive the Commission's consideration of potential legal challenges as it makes the policy decisions in this phase. First, compelling counter-arguments exist to challenges to both the First Seller and Hybrid approaches under either the dormant Commerce Clause or preemption under the Federal Power Act. Second, and perhaps more importantly, recent experience tells us that legal challenges will arise – regardless of the adopted form of regulation -- as long as California mandates consideration of imports.

The Commission should undertake further consideration of its options. While the *en banc* hearing on August 21 is an important step, the Commission staff should conduct near term workshops exploring the practical issues arising under the First Seller and Hybrid approaches.

II. A HYBRID APPROACH MERITS FURTHER CONSIDERATION.

The MAC Report reviewed the First Seller and Load Based approaches to GHG regulation in the electricity sector. While it mentioned a hybrid approach, which it described as load based regulation for electricity consumed and source based regulation for electricity generated in state and exported, it dismissed this approach without comment. (MAC Report at 42, n.35). The MAC did not, however, consider a fourth approach: a Hybrid that would rely on source-based regulation of in-state emissions, with load-based regulation for emissions associated with imported power. This Hybrid approach merits further consideration.

Under this approach, an emitting source within California would bear the responsibility to hold sufficient emissions allowances to cover its actual

emissions. It could meet its obligation using a variety of flexible compliance mechanisms, including allowance trading in a multi-sector cap-and-trade program. Imported power would not be regulated directly. A purchasing load-serving entity (LSE) would bear responsibility to acquire allowances – whether from an administrative allocation or auction – to cover emissions from its imported power.

The primary objection to the Hybrid approach lies in the potential challenge under the Commerce Clause of the United States Constitution. The Hybrid appears to impose different treatment on interstate commerce. A more careful review, however, reveals that the Hybrid could be upheld under a Commerce Clause analysis because it creates no economic disadvantage to out-of-state resources as long as the allocation shortfall is the same for in-and out-of-state electricity.

As discussed throughout these comments, the Hybrid approach is superior to other alternatives on policy, practical and legal grounds.

III. ALLOWANCE ALLOCATION METHODOLOGIES REQUIRE CONSIDERATION IN COMPARING ALTERNATIVES.

An analysis of the effectiveness of the identified approaches to electricity sector GHG regulation depends in part on the allowance allocation methodology employed. Additionally, the method of allowance allocation underlies many of the questions posed by the ALJ Ruling. Consequently, before any final assessment of alternative models can be made, a more in-depth consideration of how each approach would interface with an auction or free allocation of

allowances must be considered. EPUC/CAC offer limited initial thoughts on the question of allocation in these comments.

Allowance allocation can be based on one of three methods:

- Allocation for free, either using grandfathering of historic emissions from that emitter or benchmarking based on activity specific standard references;
- Full auctioning of allowances;
- A hybrid of the first two, with various proportions of free versus auctioning.

The MAC has not drawn a harmonized conclusion on which approach should be used. The MAC Report states: *"Some Committee members favor a 100 percent auction from the outset. Other Committee members favor a mixed approach with some free allocation initially, transitioning to a full auction over time."* (MAC Report at 60).

The California Air Resources Board (CARB) will ultimately bear responsibility for adopting a multi-sector allowance allocation methodology. Because CARB's decision will impact the effective implementation of the electricity sector approach, however, EPUC/CAC offer initial observations regarding allocation:

- Historically, emissions trading programs have relied upon free allocation methodologies where a source has a declining cap; indeed, free allocation remains the only approach that has been tested (RGGI Member States are pursuing an auction, but do not yet have any practical experience).
- In light of the complexity of the California electricity market and the potential multi-billion dollar financial impact on the power industry, an unproven auction approach presents a high degree of risk to the California economy.

- An auction penalizes firms that chose to invest, operate and create jobs in the state by devaluing those investments and rewards those who have invested in other states or countries. In the same vein, an auction affects the ability of globally competitive industries to compete with firms that are not subject to GHG regulation.
- An auction diverts cash available to emitters to invest in emissions reduction technology to allowance acquisition, and most of the contemplated uses of auction revenues by the MAC are not aimed at further reductions.
- The conditions under which California is developing its GHG program are unlikely to correspond to those experienced in EU ETS Phase I and thus the opportunity for windfall is much more remote.

For these and other reasons, EPUC/CAC favor allocation for free in the start-up phase of the California GHG Program and look forward to further exploration of this issue as Phase II progresses.

Beyond the general allocation debate, the regulators in the electricity sector must consider industry-specific issues raised by the MAC Report and discussed further below. First, as a general matter, MAC's differential auction proposal for the electricity sector – providing for free allocation to utilities and auction for all other participants -- must be rejected as counter-productive. Second, allowance allocations for generators with existing contracts will, as the MAC observes, require special consideration. Third, allowance allocations to self-generators (and particularly combined heat and power (CHP) generators), must be tailored to avoid discouraging development and forcing premature plant closure. Fourth, if an allocation is ultimately mandated, allowing market participants to self direct a percentage of revenues from their allowance purchases to fund on-site emissions reduction projects will maximize the benefits

of the state's GHG reduction goals and, importantly, increase the likelihood that reductions will occur locally.

A. The MAC's Proposal for Free Allocation to Utilities and Auction for Other Generators Is Unsound.

The MAC recommends an allowance allocation methodology that would result in different treatment for market participants within the electricity sector based on generation ownership. The MAC Report states: *"There should be no free allocation to firms under the cap that are able to pass most of their costs on to consumers. These include electric generators, other first sellers of electricity, oil refineries, and natural gas processors. ...LSEs that are closely regulated or municipally owned are not included, since these entities are likely to be obligated to pass the value of freely allocated allowances through to their ratepayers."* (MAC Report at 56).

The MAC's recommendation is internally inconsistent and not supportable. The MAC suggests that no free allocation should occur where firms can freely pass on their costs to customers. Yet, in the same paragraph, the MAC proposes free allocation for firms – regulated utilities—which have an absolute ability to freely pass on their costs. In addition, the MAC sees the end-state of regulation as one in which *"all actors face electricity prices representing the full cost to society associated with the generation and transmission of electricity."* (MAC Report at 47). In other words, the goal is to price an externality so that it is visible to the consumer in making choices about energy consumption. Exempting utility-owned generation so that consumers do not see the carbon

costs runs counter to this goal. For these reasons, California should not differentiate allocation methodology based solely on generator ownership.

B. The MAC's Observations of the Circumstances Faced Under Existing Contracts Warrant Strong Consideration.

Implementing an auction-based allowance allocation system will, as the MAC observes, affect existing contracts. The MAC Report states: *"Some independent power producers may operate under long term fixed price contracts and thereby not be able to pass through costs until those contracts expire. Whether these producers should receive a free allocation in the interim should be evaluated carefully."* (MAC Report at 56.) In all likelihood, contracts executed before final implementation of AB 32 either will not squarely address responsibility for carbon-related costs or will address them inadequately. Under a system of free allocation of allowances, there would be no immediate injury to existing contracts. In the case of an auction, however, existing contracts present a challenge.

If an auction were implemented, and all sellers or generators were required to purchase allowances, existing contract holders could see immediate cost increases to produce electricity without any corresponding adjustment to price. Depending upon the price of carbon allowances, an existing contract holder could face severe economic consequences. For example, consider a 20-year contract with the Market Price Referent (MPR) pricing provisions adopted by the CPUC in Resolution E-4049. The return on equity (ROE) for an equity investment of about \$230 million would be 12.78% under the adopted MPR pricing. If the price of carbon allowances equates to \$8/MWh of energy sold

under the contract, the return on equity would be reduced to 4.15% (i.e., a decrease of more than 67%). At an allowance price of \$30/MWh, the return on equity becomes negative and the project would have about a \$500 million loss over the term of a 20 year contract.

Moreover, the prospect of an auction based allocation could serve as a barrier to full development of potential new CHP under the MAC rationale that only regulated entities are exempt from the auction.

For these reasons, EPUC/CAC again recommend the free allocation of allowances. In the event an auction were mandated, however, the Commission would be well-advised to provide for existing contracts in its regulations. The regulations should provide that absent an unambiguous provision allocating carbon cost responsibility to the seller, a utility will compensate the seller for the seller's direct and actual carbon cost incurred to meet its obligation to the utility.

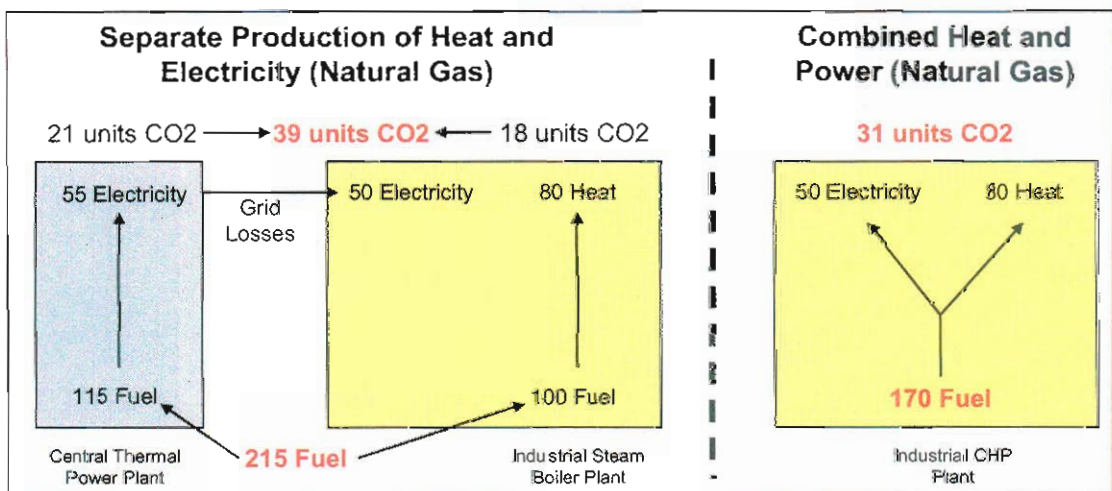
C. Any Allocation Methodology, But Particularly an Auction, Requires Special Consideration for CHP Self-Generators.

Although it reduces overall emissions, an industrial site that employs CHP to serve on-site or nearby load faces responsibility for higher direct emissions than an industrial site that purchases its electricity requirements from the grid. These circumstances require special consideration in any allocation methodology. In an auction-based allocation, a CHP self-generator will suffer an immediate and direct economic penalty despite its contribution to a general reduction in GHG emissions.

When an industrial site invests in a high efficiency CHP plant, total emissions from the production of electrical and thermal energy are decreased.

CHP increases the overall efficiency of energy production, and emissions attributable to CHP are more than offset by emissions displaced from separate central power generation and industrial boiler installations. Total direct emissions at the industrial site, however, are increased. Figure A illustrates these emissions impacts.

**FIGURE A
ENERGY FLOWS FOR SEPARATE AND COMBINED HEAT AND POWER
GENERATION**



In Figure A, an industrial facility producing heat from a steam boiler emits 18 units of CO₂, and the facility's purchase of electricity from the utility attributes 21 units of indirect CO₂ emissions to the industrial use of electricity. The combined emissions attributable to the industrial use of energy by this site is 39 units of CO₂. When the industrial facility installs CHP, the direct on-site emissions increase from 18 to 31 units of CO₂, but the total emissions attributable to the industrial facility's energy use are reduced from 39 to 31 units. While on-site emissions attributable to the CHP producer increase by 70%, net global emissions are reduced by 21%.

All other conditions held equal, an industrial consumer would be disinclined to invest in on-site CHP under an auction-based allocation methodology. This disincentive would occur because the on-site generator, unlike consumers purchasing from the utility, would be required to acquire and pay directly for emissions allowances to cover electricity generation. Arguably, this effect could be mitigated to the extent that carbon costs are reflected in utility rates paid by consumers. Even if carbon costs are reflected perfectly in utility rates, those costs will reflect a highly blended portfolio with hydroelectric and renewable resources with no carbon cost. Because CHP is typically gas-fired in California, a self-generation facility cannot compete with the utility's blended portfolio rate of emissions.

A free allocation methodology using a double-benchmark approach³ would best encourage CHP self-generation. Under an auction methodology, however, a penalty could be mitigated by reducing the number of allowances the site was obligated to buy to reflect the CHP investment in efficiencies and overall reductions in GHG emissions. Regardless of the ultimate model adopted for the electricity sector, this issue requires attention.

D. MAC's Proposal for Use of Auction Revenues Would Fail to Optimize Reduction Projects Related to Electricity Generation or Natural Gas Usage.

The MAC considers a variety of options for investment or use of auction revenues. It proposes to use revenues for efficiency programs, distributing

³ "Double Benchmarking" refers to the comparison of CHP electricity with a gas-fired CCGT power plant and CHP heat with boiler plant. This methodology is used in a number of EU Countries in the EU ETS, including Germany, the Netherlands and Italy.

allowances for free to LSEs to deliver energy efficiency, income tax reductions, rebates to state residents and programs to support workers at firms affected by competition from unregulated jurisdictions. While EPUC/CAC do not support an auction of GHG allowances in the first phase of the AB 32 program, if there is an auction the MAC's proposal ignores an important opportunity for the use of revenues to expedite attainment of the state's GHG goals in electricity sector investments.

From an environmental justice standpoint, a beneficial use of auction revenues would be to encourage reduction projects in the communities in which emissions occur. For example, if an electricity generator were obligated to purchase allowances for GHG emissions in an auction, the state economy and the local community would benefit from allowing the generator to retain a percentage of the purchase price of those allowances to self-direct and invest in qualified capital projects aimed to further reduce GHG emissions on the industrial site.⁴ For example, an electric generator might invest in repowering or aftermarket reduction technologies to reduce generation emissions. In the case of an industrial site, revenue retention may stimulate the installation of more on-site electricity resources, including efficient CHP, solar or wind projects.

Beyond assisting in local reductions in the affected community, this approach has a number of benefits. First, permitting self-direction of auction revenues would increase the likelihood of capital investment by favorably

⁴ This type of option was raised in the December 15, 2006, Summary of the Median Proposal for an Oregon Carbon Allocation Standard, which contemplated partial retention of the Carbon Dioxide Reduction Charge for specified sources.

changing the ability of the project to compete for the firm's internal capital, because the funds would require the firm to "use it or lose it". Second, it would expedite achievement of reductions of GHG emissions in the electricity sector. Third, the plan could reduce the administrative bureaucracy required to develop and administer centralized reduction programs; those costs would be borne by the emitter. Fourth, given the obvious concern regarding impact on firms competing in markets outside California's GHG program, the revenue retention approach would seem to mitigate the impact on the firm and its workers by encouraging continued investment in California assets.

While the MAC does not offer this recommendation, its observations generally support this approach. The MAC *"recommends that California use a substantial portion of the value of allowances to promote end-use efficiency among residential, commercial, and industrial energy consumers, and to increase assistance to low-income consumers."* (MAC Report at 57). The MAC further notes: *"it is also appropriate to use a portion of the allowance value to finance reductions of GHGs and criteria pollutants in communities that bear disproportionate environmental and public-health burdens."* (MAC Report at 57). Allowing an industrial firm to retain allowance revenues to the extent they can be used to achieve local reductions achieves both of these goals and could reduce administrative costs associated with revenue retention.

IV. CALIFORNIA'S POLICY GOAL SHOULD BE TO ADOPT A MODEL TAILORED CLOSELY TO ACHIEVE SOURCE-BASED REGULATION OF IN-STATE RESOURCES.

The MAC stated a preference for the First Seller approach over the Load Based approach. The preference was grounded in the First Seller approach's "*relative simplicity and ease of emissions accounting.*" (MAC Report at 52).

EPUC/CAC agree. Of the two approaches, the First Seller approach lies closer to a source based model, and a GHG regulation model that is tailored as closely as possible to achieve source-based regulation of in-state resources should be preferred from a policy perspective. The Hybrid approach, however, best achieves this policy objective.

The First Seller or the Hybrid approaches, bearing a closer resemblance to source-based regulation than a Load Based approach, carry numerous policy advantages. These approaches:

- Achieve the most direct control over emissions, maximizing the potential for accurate monitoring and targeting of these sources;
- Directly align incentives, placing compliance responsibility on the party with the ability to achieve emissions reductions;
- Provide for greater transparency and liquidity in the market for carbon allowances;
- Hold the greatest potential for linkage with other national and international programs and facilitates simple adaptation when regulation expands to a regional program.

In addition, Southern California Edison (SCE) has pointed out important advantages of the First Seller approach when compared with a Load Based approach, particularly in its ability to ensure accurate reporting.⁵

The Load Based method, in comparison, is suboptimal from a policy perspective. First, it would be the first of its kind, differing from other GHG regulation schemes – EU ETS and RGGI -- with which California would likely seek to interface. Consequently, linkage with these other systems could present difficulty or result in unintended consequences. Second, a Load Based method fails to align compliance responsibility with emissions control; the LSE, not the generator, would control allowances associated with the generator's emissions. Third, because the LSE, rather than the source, controls the allowances, there will be less transparency both in the allowance market and the power market. The signals regarding the value of allowances and power from different sources will be muted as they are blended in the utility portfolio. Fourth, by making LSEs and not sources the only parties responsible for compliance, a more concentrated allowance market, likely controlled by utilities, would arise. SCE likewise has suggested that the Load Based approach likely would distort the market.⁶

⁵ Comments of Southern California Edison Company (U 338-E) Regarding Joint California Public Utilities Commission and California Energy Commission Staff Proposal for an Electricity Retail Provider GHG Reporting Protocol (SCE Comments), R.06-04-009, filed July 2, 2007, at 6-15.

⁶ SCE Comments at 15-18.

For all of these reasons, EPUC/CAC encourage the Commission to further develop the First Seller and Hybrid approaches as a more effective substitute for a Load Based approach.

V. EACH GHG REGULATION MODEL PRESENTS PRACTICAL CHALLENGES.

Regardless of the adopted approach, regulating GHG emissions in the electricity sector will present practical challenges as long as imports must be addressed. These challenges include finding means of setting emissions values for the unspecified resource imports and determining how to allocate allowances to cover these emissions. From a practical standpoint, however, the simplest approach to regulation would be the Hybrid approach, since the majority of emissions would essentially be covered by direct, source-based regulation.

A. The Hybrid Approach.

Under the Hybrid approach, the point of regulation would be the emitting resource for in-state resources and the LSE for imports. This approach is the least complicated in practical terms. Under this approach, an emitting source within California would bear the responsibility to hold sufficient emissions allowances to cover its actual emissions. It could meet its obligation using a variety of flexible compliance mechanisms, including allowance trading in a multi-sector cap-and-trade program. Imported power would not be regulated directly. A purchasing load-serving entity (LSE) would bear responsibility to acquire allowances – whether from an administrative allocation or auction – to cover indirect emissions from its imported power.

Since California's energy consumption from in-state resources totals around 75-80%, the majority of emissions would be covered by direct regulation of the source under the Hybrid approach. Allowances could be provided directly to the source, whether based on historical baseline or a benchmark. The source would report its emissions to CARB and be required to cover its emissions by the end of a compliance period. There is little estimation or allocation involved in this approach and the allocation mechanics are simple and direct. Importantly, the EU ETS has shown that this method can be administered as a practical matter.

While the remaining 20-25% of consumption represented by imports presents a greater challenge, the challenge is not unique to the Hybrid approach. As in the Load Based model, LSEs would hold the allowances for imports, based on the same historical baseline or benchmark that would be used for the source-based allocation. For example, if an in-state generator were allocated 90% of baseline year emissions, imports would receive the same allocation within the LSE portfolio. The LSE would report its emissions attributable to imports to CARB and would be held to cover those emissions with allowances by the end of the compliance period.

Under the Hybrid approach, allocation could be done on an *ex ante* basis, as it was in the EU ETS. This would increase the ability of market participants to engage in trading of allowances, when compared with an *ex post* allocation methodology. The Hybrid approach also would have a limited impact on exports, affecting only the regulation of emissions from power exported by in-state

resources. Finally, the primary import problem -- how to determine emissions from unspecified resources -- will loom over the Hybrid and other models.

B. First Seller Approach.

Under the First Seller approach, the MAC proposes that the point of regulation would be the party making the first sale of "power into the California market." (MAC Report at 42). In addition, the ALJ Ruling states that "*for in-state California generation, the first seller is the generator, in call cases....*" (ALJ Ruling at 3). Determining precisely who would be the regulated entity, however, is not entirely as straightforward as the MAC would suggest.

First Sellers generally would include merchant generators, Qualifying Facilities (QFs), power marketers, investor owned utilities (IOUs) and publicly owned utilities (POUs). To ensure full coverage of this approach, it would necessarily cover both wholesale and retail first sales. As a general matter, the specific points of regulation would be as follows:

- For power first sold by an in-state generator for in-state delivery, the generator would effectively be the entity responsible for compliance.
- For power sold by an out-of-state generator within the state to a power marketer or utility, the generator would be the entity responsible for compliance.
- For power generated out-of-state and first sold by a power marketer for resale, the marketer would be the entity responsible for compliance.
- Power generated by an IOU, POU or other LSE and sold for the first time at retail would place responsibility for compliance on that LSE.

The ALJ Ruling, however, may need reconsideration or clarification. It is possible for power from an in-state generator to be sold first to an out-of-state hub (e.g., Palo Verde hub in Arizona). In this case, the generator would not be a

First Seller “into California electricity markets.” The entity would only be responsible for compliance to the extent the power subsequently was imported into California.

Allocation under the First Seller approach is somewhat more complicated than under the Hybrid approach. In-state resources could receive allowances on an *ex ante* basis using the selected baseline and allocation methodology; the allowance allocation would need to exclude exports to fit within the MAC’s proposed scope. An *ex ante* allocation to First Sellers delivering imports would be more challenging, but not impossible. Alternatives, under a free allocation approach, could include:

1. Allocate *ex-ante* (grandfathered or benchmarked) to traders or other first sellers based on selected baseline emissions (associated with imported electricity sold in California) used for in-state first sellers. Create a reserve for new entrant importers.
2. Allocate *ex ante* to imports under long-term contracts with LSEs using same baseline and methodology employed for in-state resources. Allocate *ex-ante* to an emissions bank (e.g., CAISO or state agency) that would provide access to allowances for First Sellers not receiving a direct allocation.
3. Allocate *ex ante* to imports under long-term contracts with LSEs using same baseline and methodology employed for in-state resources. Allocate *ex-post* to First Sellers not receiving a direct allocation as power is sold into the state.

Under an auction, all First Sellers would acquire allowances under the same process on an *ex ante* basis.

The First Seller approach would not appear to address self-generation and CHP. First, energy from on-site generation consumed by load on the generation site introduces complications, as the power may never be “sold” or go to market.

The approach could be modified to treat the on-site CHP facility as the First Seller. Note, however, that the Hybrid approach is preferable in this context, because it would naturally subsume on-site generation by directly regulating in-state sources. Second, it is not apparent how the First Seller approach would address the dual nature of CHP projects. There appears to be no mechanism to recognize thermal production or utilization under this system – a point that would need to be explored in establishing an allocation methodology.

C. Load Based Approach.

The Load Based approach offers simplicity by requiring a limited number of allocations, solely to LSEs. Calculating those allocations, however, presents a challenge under a free allocation method. Under this method, a substantial degree of estimation will be required, thus injecting risks of inaccuracy. It will be difficult to choose a single baseline year that reflects future consumption due to shifts in demand based on hydro conditions. It will also be difficult to make an allocation that provides a stable snapshot of each LSE's portfolio. Direct Access is a relatively new market feature (which did not exist in 1990), and its future expansion is uncertain. As a result of Direct Access, the relative market shares of the LSEs have changed and will continue to change over the years. Consequently, getting an accurate and fair allocation under the Load Based approach presents a greater challenge. Assuming the amount to be allocated can be rationally and reliably determined, the Load Based approach would permit an *ex ante* allocation, encouraging a more vibrant and liquid market.

The Load Based approach fails to adequately address self-generation and CHP, described above. It also would face the challenge of estimating import emissions.

VI. LEGAL ASPECTS OF MARKET DESIGN APPROACHES.

In considering the appropriate market design approach, it is important to evaluate the design's vulnerability to legal challenge. A challenge can be made pursuant to the Commerce Clause through which Congress regulates interstate commerce. A challenge could also be mounted based on a claim that a regulatory scheme is preempted by the Federal Power Act (FPA) which charges the Federal Energy Regulatory Commission (FERC) with the responsibility to regulate wholesale transactions.

As explained below, the Load Based approach raises the least likelihood of a successful legal challenge under either theory. Because legal challenge is likely to occur regardless of the adopted method, the Commission should not base its decision solely on this factor. The Hybrid approach provides the market design approach that avoids a federal preemption argument; while as a matter of first impression it may seem vulnerable to a Commerce Clause challenge, a closer look reveals the strength of this approach in the face of such a challenge. Finally, the First Seller approach on the surface appears to present some level of vulnerability to both a Commerce Clause and federal preemption challenge, although these challenges could be overcome.

A. Challenges Under the Dormant Commerce Clause.

1. The Dormant Commerce Clause Focuses On Discrimination That Favors In-State Interests.

The Commerce Clause charges Congress with the authority “[t]o regulate Commerce . . . among the several states.”⁷ The negative aspect of the Commerce Clause, also known as the Dormant Commerce Clause, “limits the power of the States to erect barriers against interstate trade.”⁸ Despite this limitation, states still retain the authority to regulate matters of “legitimate local concern.”⁹ States derive the authority to regulate matters of local concern from their police powers.¹⁰ Importantly, included among these police powers is the ability of states to promulgate statutes directed to promoting the health and safety of its citizens.¹¹

In determining whether a state statute, state regulation, city ordinance or county ordinance violates the Dormant Commerce Clause, courts focus on whether it results in differential treatment that favors in-state *economic* interests and burdens out-of-state interests.¹² There are two different ways a regulation can be discriminatory and, as explained below, different standards of review are applied to each type of regulation.

⁷ *Oregon Waste Systems, Inc. v. Dept. of Environmental Quality of the State of Oregon, et al.*, 511 U.S. 93, 98 (1994).

⁸ *Id.*

⁹ *Maine v. Taylor*, 477 U.S. 131, 138 (1986); *Lewis v. BT Investment Managers, Inc.*, 447 U.S. 27, 35 (1980).

¹⁰ *Maine*, 477 U.S. at 138; *Lewis*, 447 U.S. at 34.

¹¹ See *Maine*, 477 U.S. at 138; *Huron Portland Cement Co. v. Detroit*, 362 U.S. 440 (1960); *Welch v. Board of Supervisors of Rappahannock County, Virginia*, 888 F.Supp 753, 758 (W.D.Va 1995).

¹² *Oregon Waste Systems, Inc.*, 511 U.S. at 99.

a. A Facially Discriminatory Regulation Is Subject to Strict Scrutiny.

A regulation is facially discriminatory where the discriminatory impact is evident from the language of the statute.¹³ The Supreme Court has clarified, for example, that a law is discriminatory if it “*tax[es] a transaction or incident more heavily when it crosses state lines than when it occurs entirely within the State.*” Accordingly, an Oregon statute, which imposed a higher surcharge per ton for disposal of solid waste generated in Oregon than for waste generated in other states, was found to be facially discriminatory.¹⁴ A Maine statute, which banned the importation of live baitfish into the state, was also deemed facially discriminatory.¹⁵ Finally, a state statute that restricted out-of-state wineries from selling wine directly to in-state consumers was found facially discriminatory.¹⁶ It is worth observing that in each of these cases, out-of-state commerce was restricted or more heavily taxed than in-state commerce.

Where a regulation is facially discriminatory, it is deemed *per se* invalid unless it can survive the strict scrutiny test.¹⁷ A facially discriminatory regulation fails the strict scrutiny test unless it can demonstrate that “*the discrimination is demonstrably justified by a valid factor unrelated to economic protectionism.*”¹⁸ A

¹³ See *Oregon Waste Systems, Inc.*, 511 U.S. at 93 (invalidating facially discriminatory statute); *National Solid Waste Mgmt. v. Pine Belt Regional Solid Waste Mgmt Auth’y*, 389 F.3d 491, 497 (5th Cir. 2004) (“[s]tate laws discriminating on their face are virtually *per se* invalid.”)

¹⁴ *Oregon Waste Systems, Inc.*, 511 U.S. at 93.

¹⁵ See *Maine*, 477 U.S. at 138.

¹⁶ *Granholm v. Heald*, 544 U.S. 460, 466 (2005).

¹⁷ *Maine*, 477 U.S. at 138; *Alliant Energy Corp. v. Bie*, 336 F.3d 545, 546 (7th Cir. 2003)

¹⁸ *Wyoming v. Oklahoma*, 502 U.S. 437, 454 (1992); *Oregon Waste Systems, Inc.*, 511 U.S. at 93; *Maine*, 477 U.S. at 131.

state must also demonstrate that there are no “*nondiscriminatory alternatives adequate to preserve the local interests at stake.*”¹⁹

b. A Regulation That Is Evenhanded But Still Has Discriminatory Impact Is Subject to Pike Balancing Test.

A regulation that is not facially discriminatory can be struck down if it has a discriminatory impact. An evenhanded statute that has a discriminatory impact, however, will be invalidated only if the incidental impact of the statute exceeds the “*putative local benefit.*”²⁰ A statute is categorized as evenhanded when it “*uniformly burdens both in-state and out-of-state interests.*”²¹ For example, a statute which placed a limit on the amount of infectious waste that an in-state incinerator could burn but did not consider the origin of the waste was reviewed as an evenhanded statute.²²

In determining whether the incidental impact outweighs the local benefit, “*the extent of the burden that will be tolerated will . . . depend on the nature of the local interest involved, and on whether it could be promoted as well with a lesser impact on interstate activities.*”²³ This standard is applied as a balancing test, known as the *Pike* Balancing Test, and is applied to determine whether the discriminatory impact exceeds the statute's local benefits.²⁴ In applying this balancing test, the Supreme Court has upheld several state statutes, directed to

¹⁹ *Chemical Waste Mgmt Inc. v. Hunt*, 504 U.S. 334, 342 (1992) (quoting *Hunt v. Washington Apple Advertising Comm'n*, 432 U.S. 333, 353 (1992)).

²⁰ *Oregon Waste Systems, Inc.*, 511 U.S. at 99; *Maine*, 477 U.S. at 138; *Pike v. Bruce Church, Inc.*, 397 U.S. 137, 142 (1970); *National Solid Waste Mgmt. v. Pine Belt Regional Solid Waste Mgmt Auth'y*, 389 F.3d 491, 497 (5th Cir. 2004).

²¹ *Environmental Technology Council v. Sierra Club*, 98 F.3d 774, 787 (4th Cir. 1996).

²² *Chambers Medical Technologies of South Carolina, Inc. v. Bryant*, 52 F.3d 1252, 1258 (4th Cir. 1995).

²³ *Pike v. Bruce Church, Inc.*, 397 U.S. 137, 142 (1970);

²⁴ *Id.*

promoting the health and safety of its citizens, where the discriminatory impact did not exceed the local benefit. In *Maine v. Taylor*, for example, the Supreme Court upheld Maine's ban on the import of baitfish where it had no other means to prevent the spread of parasites and the adulteration of its native fish species. In *Huron Portland Cement Co. v. Detroit*, the Supreme Court held a city ordinance, limiting emission of smoke, to be a legitimate exercise of state police powers because it promoted the health and welfare of city's inhabitants. Finally, in *Welch v. Board of Supervisors of Rappahannock County*, the district court held that a county ordinance, prohibiting use of sewage sludge for fertilization purposes, did not violate the Commerce Clause where the County had rational basis for believing that the ordinance would protect the health and safety of its citizens.

2. Any of the Contemplated Approaches is Likely to Withstand a Challenge Under the Dormant Commerce Clause.

AB 32 directs the CARB to develop the appropriate regulations to implement a statewide greenhouse gas emissions cap and to establish a mandatory reporting system to track and monitor global warming emission levels.²⁵ The statute alone does not distinguish between those entities located in-state and those out-of-state, but implementing regulations could. Depending on whether the regulations are facially discriminatory or discriminatory in impact, different legal standards of review will be used. Regardless of the legal standard used, based on Commerce Clause jurisprudence, discrimination will only exist

²⁵ AB 32 is codified in California Health & Safety Code §38500, et al.

where differential treatment results in *economic disadvantage to out-of-state interests*.²⁶ Also important to the analysis is the fact that AB 32 is largely directed to addressing a “*serious threat to the economic well-being, public health, natural resources, and environment of California*.” This focus of the underlying statute on public health and welfare places the regulation within the purview of the state’s police powers making it less vulnerable to a successful challenge.

The three different regulatory approaches present varying risks of successful Dormant Commerce Clause challenges. The focus of a challenge under all approaches will be on whether the approach results in differential treatment that favors in-state *economic* interests.²⁷ As a general matter, no Commerce Clause challenge is likely to be successful with any of the three approaches. First, none of the approaches contemplate a price or rate differential for in-state and out-of-state resources that would disadvantage imports; in fact, where a price differential is present, it burdens in-state resources. Second, none of the contemplated approaches contemplates a “ban” or a “restriction”, which is what typically triggers a finding of Commerce Clause violation.

1. A Load Based auction approach presents only a limited risk of a successful Commerce Clause challenge. In-state and out-of-state

²⁶ See *Oregon Waste Systems, Inc.*, 511 U.S. at 93 (“As we use the term here, ‘discrimination’ simply means differential treatment of in-state and out-of-state economic interests that benefits the former and burdens the later.”); *H.P. Hood & Sons, Inc. v. Du Mond*, 336 U.S. 525, 537-38 (1994) (the relevant economic unit is the nation and the Commerce Clause prohibits states from balkanizing into separate economic units); *Southern Union Co. v. Missouri Public Service Comm’n*, 289 F.3d 503, 507 (8th Cir. 2002) (“*the scrutiny to which a State statute is subject depends on whether its impact on interstate commerce is direct and substantial and is designed to obtain an economic advantage for the State at the expense of its sister States.*”)

²⁷ *Id.*

sources of electricity would be treated equally under this approach; an LSE would be required to acquire allowances to cover emissions for electricity in its portfolio whether the emissions arose from in-state or out-of-state generation. For this reason, there would be little basis to argue that the approach results in discriminatory treatment as defined by Dormant Commerce Clause jurisprudence.

Despite the limited grounds, a challenge could be made based on grounds that the use of a default or average could discriminate against certain out-of state resources whose emissions fall below the default rate. This limited difference in treatment, however, could be overcome by the legitimate state interest in GHG regulation and a showing that no less discriminatory alternative exists. (Note, as well, that this potential challenge resides with all contemplated approaches.)

2. A Load Based free allocation approach's vulnerability to challenge is similar to that under the free allocation approach. The only difference between the free allocation and the auction-based allocation approach would be the extent of compliance costs incurred by the LSE. This difference would carry no import as long as the compliance costs for a megawatt hour (MWh) of in-state and out-of-state emissions were the same. Because all resources are treated equally within the LSE portfolio, the argument that the approach discriminates against interstate commerce would have no support.

3. A First Seller auction approach provides limited grounds for a challenge. There would be no differential treatment favoring in-state economic interests and burdening out-of-state interests because all sellers, whether in-state or out-of-state, would be required to acquire allowances in the same manner to cover their actual emissions. Nonetheless, a challenge could be made based on grounds that the allowances required for unspecified resources on a default or average basis could discriminate against certain out-of state resources whose emissions fall below the default rate.
4. A First Seller free allocation approach can be open to challenge under the Dormant Commerce Clause, but only to the extent the method of allocation between in-state and out-of-state resources differs and results in an economic advantage for in-state resources. To the extent that the allocation to both types of sellers can be uniform (e.g., 90% of 2003 emissions), and that there are no additional costs placed on out-of-state resources, there will be no discrimination.
5. The Hybrid auction approach presents a limited risk of Commerce. Under this approach, all in-state sources would be regulated and out-of-state sources would remain regulation-free. Out-of-state resources would bear no direct compliance costs; in-state resources would be forced to purchase allowances to cover their emissions and, for imports, the LSE purchasing the power would bear this obligation. For this reason, out-of-state resources would be hard-pressed to

demonstrate that they suffer an economic disadvantage when compared with their in-state counterparts. Even if an economic disadvantage could be shown, it could be overcome by the state's interest in regulating GHG emissions in an efficient and accurate manner. The state's interest in creating a program that will be consistent with other GHG programs while avoiding direct regulation of out-of-state resources would also weigh in favor of this approach.

6. The Hybrid free allocation approach presents a risk of Commerce Clause challenge that, once again, could be overcome. Under this approach, it would be difficult for an out-of-state resource to claim that it is economically disadvantaged since the approach imposes a compliance obligation on in-state sources only. An out-of-state source could argue that the provision of free allowances to in-state sources provides opportunity value that is not available to out-of-state resources.²⁸ Once again, however, while an in-state resource may receive an allowance, it would receive the allowance to meet a compliance obligation that is not placed on the out-of-state resource. (In all likelihood, the in-state resources would receive fewer allowances than required to comply with its obligation.) Under these circumstances, it would be difficult for the out-of-state source to demonstrate that it is economically disadvantaged while in-state

²⁸ To make this argument, an out-of-state source (import) could argue that free allowances provided to in-state sources provides them with control over their ability to sell their product into the California electricity market. Since LSEs would receive allowances on behalf of imports, the import would not have the same degree of control.

sources are afforded economic preferences. Also, like the other potential claims, the important state interest in GHG regulation would outweigh any perceived economic difference.

To summarize the foregoing discussion, a Commerce Clause challenge could be raised under each and every market design alternative. The likelihood of success of any potential challenge under the Dormant Commerce Clause seems sufficiently low that none of the potential approaches – First Seller, Hybrid or Load Based -- should be excluded from consideration on this basis.

B. Federal Power Act Analysis.

1. The Federal Power Act Preempts State Law Where There is Basis To Believe State Law Cannot Coexist With FERC's Authority to Regulate Wholesale Transactions.

Implementing regulations will be preempted by the FPA, if they violate the Supremacy Clause which “invalidates state laws that ‘interfere with, or are contrary to,’ federal law.”²⁹ Federal law can displace state law when Congress so states in express term³⁰ or where a scheme of federal regulation is sufficiently comprehensive that it permits a reasonable inference that Congress left no room for state regulation.³¹ Where Congress has not completely displaced state regulation in a specific area however, state regulation of matters related to traditional police powers is afforded a presumption against preemption.³² State

²⁹ *Hillsborough County v. Automated Medical Laboratories, Inc.*, 471 U.S. 707, 712 (1985).

³⁰ *Id.* at 713.

³¹ *Id.* at 713.

³² *New York v. FERC*, 535 U.S. 1, 17-18 (2002) (When the focus is on whether a state regulation conflicts with, and has been displaced by Federal authority, the Court “start[s] with the assumption that the historic police powers of the States were not to be superseded ... unless that was the clear and manifest purpose of Congress.”); *Maine*,

regulations that seek to protect the health and safety of its citizens are considered to be within the purview of these police powers.³³

Where a state regulation is not completely displaced and is related to health and safety, there are only limited grounds for preemption. To successfully challenge such a regulation on the grounds of preemption, a party must demonstrate that the conflict existing between the state regulation and the federal legislation is strong enough to overcome the presumption that a state's regulation of health and safety matters can constitutionally coexist with federal regulations.³⁴ This presumption is overcome only when compliance with both sets of regulations is a physical impossibility or where compliance with the state law "*stands as an obstacle to the accomplishment and execution of the full purposes and objective of Congress.*"³⁵

This preemption analysis can be viewed in one of two ways in evaluating claims asserting FPA preemption. In determining whether there is "room" for state regulation of GHG, the specific field or area of preemption could be viewed as (i) electricity sales (which would encompass both retail and wholesale transactions) or (ii) wholesale transactions. These two different perspectives require slightly different analyses.

³³ 477 U.S. at 138 ("*States retain authority under their general police power to regulate matters of legitimate local concern....*"); *Hillsborough County*, 471 U.S. at 715. *Hill v. Colorado*, 530 U.S. 703, 715 (2000) ("It is a traditional exercise of the States' 'police powers to protect the health and safety of their citizens.'"); *Medtronic, Inc. v. Lohr*, 518 U.S. 470, 475 (1996) (statutes providing for the health of the state's citizens fell squarely within purview of state's police powers).

³⁴ *Hillsborough County*, 471 U.S. at 715. See examples *Pacific Gas and Electric Co. v. State Energy Resources Conservation and Development Comm'n*, 461 U.S. 190, 221 (1983) (California statute, which conditioned construction of nuclear facilities on state commission finding that adequate means for nuclear waste disposal existed, did not stand as an obstacle to federal statute which promoted nuclear power.)

³⁵ *Hillsborough County*, 471 U.S. at 713.

If the focal point for preemption is the field of “electricity sales,” the FPA indicates that, while it confers upon FERC the authority to regulate transmission of electric energy in interstate commerce and wholesale sales of electricity in interstate commerce, it also expressly reserves regulation of retail sales of power to the states.³⁶ This reservation indicates that Congress does not expressly displace state regulation of electricity sales. If a more conservative approach is taken, and the field of preemption is “wholesale transactions,” case law indicates that FERC fully occupies the field.³⁷ However, “[w]hen Congress legislates in a field traditionally occupied by the States, ‘we start with the assumption that the historic police powers of the States were not to be superseded by the Federal Act unless that was the clear and manifest purpose of Congress.’”³⁸ Nothing in the FPA indicates that Congress intended to usurp the states’ police powers. For this reason, under either analysis, a state regulation directed to protecting the health and safety of its citizens can survive an FPA preemption challenge as long as it does not create a physical impossibility or present an obstacle to the federal scheme of regulation.³⁹

There are strong grounds to conclude that a state’s authority to regulate carbon emissions is drawn from its police powers and can coexist with FERC’s authority to regulate wholesale transactions. The Legislature’s express findings

³⁶ 16 U.S.C. §824(b)(1) (2007) (reserving regulation of facilities used in local distribution of electric energy to states); *Public Utility District No. 1 of Snohomish County Washington v. Federal Energy Regulatory Comm’n*, 471 F.3d 1053, 1058 (9th Cir.2006) (“FPA empowers FERC to regulate wholesale electricity rates but not the rates charged directly to consumers by local utilities”).

³⁷ *Nantahala Power & Light Co. v. Thornburg*, 476 U.S. 953, 966 (1986) (explaining that FERC has exclusive jurisdiction over the regulation of interstate wholesale utility rates).

³⁸ *California v. ARC America Corp.*, 490 U.S. 93, 101 (1989).

³⁹ *Hillsborough County*, 471 U.S. at 713.

in enacting AB 32 state that “[g]lobal warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California.”⁴⁰ AB 32 is codified as a health and safety statute and it expressly elaborates on the health threats that it is meant to address:

The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems. Id.

More importantly, as discussed below, a recent FERC case categorizes a state regulation that creates and allocates environmental attributes to be a matter of state law. Since the environmental attributes were deemed an issue of state law, they were found to be outside the scope of the FPA.

In *American Ref-Fuel Co. et al.*, FERC was asked to decide whether contracts entered into under the Public Utility Regulatory Policies Act of 1978 inherently conveyed renewable energy credits “or similar tradeable [sic] certificates” to the purchasing utility.⁴¹ The FERC began by observing:

*RECs have been created in recent years by State programs typically designed to promote reliance on renewable energy resources. These State programs typically are premised on promoting policy goals such as improved air and water quality, reduction of greenhouse gas emissions, broader fuel diversity, enhanced energy security, and hedging against the price volatility of fossil fuels.*⁴²

⁴⁰ California Health & Safety Code §38501(a).

⁴¹ Federal Energy Regulatory Commission, 105 FERC ¶ 61,004, 2003 WL 22255784 (2003).

⁴² *Id.* at ¶ 61,005.

FERC examined PURPA and its implementing regulations and determined that environmental attributes are not addressed by the regulations.⁴³ FERC observed that “[w]hat is relevant here is that the RECs are created by the States.” In addition, FERC stated: “States, in creating RECS, have the power to determine who owns the REC in the initial instance and how they may be sold or traded; this is not an issue controlled by PURPA.” Finally, FERC held: “While a state may decide that a sale of power at wholesale automatically transfers ownership of the state-created RECS, that requirement must find its authority in state law, not PURPA.” In short, this FERC decision suggests that the creation and allocation of environmental attributes, which internalize externalities like RECs, is likely to be considered an issue of state law, not federal law. This case also suggests that FERC’s authority to regulate wholesale transactions is not comprehensive: that is, the Federal Power Act does not confer on FERC the authority to regulate all activities having any relation to the wholesale transaction. For these reasons, there are strong grounds to believe that GHG allowances, like RECs will not be subject to preemption.

2. All Approaches Are Likely to Withstand Challenge Under Federal Power Act.

The recent FERC case which finds that a state’s creation and allocation of RECs is a matter of state law provides a strong indication that FERC views environmental attributes, like GHGs, to be a matter of state law. This case provides a strong basis to conclude that a challenge under the FPA will be precluded under any regulatory approach.

⁴³ *Id.* at ¶ 61,007.

If environmental impacts are not determined to be solely a matter of state law, only a market approach which creates a physical impossibility or obstacle to FERC's regulation of wholesale transactions will warrant FPA preemption.⁴⁴

The First Seller approach is the approach which may be most vulnerable to challenge under the FPA. The First Seller approach regulates and therefore places compliance costs directly on a firm as a result of a "first sale" in California. As discussed above in Section V.B., some (but not all) of these first sales will be wholesale transactions. Again, however, the regulation of an environmental impact under the state's police powers is unlikely to provide grounds for a successful challenge under the FPA. The regulation would fall neither in the FERC's direct scope of regulation, nor would it impose an obstacle to FERC's scheme of wholesale regulation..

Neither the Load Based approach nor the Hybrid approach place the point of regulation on a wholesale transaction. Under the Load Based approach, the point of regulation is the LSE and its deliveries to end-use load, which is subject to state jurisdiction as retail sales. Under the Hybrid approach, the points of regulation would be the generation function for in-state resources and the LSE for imports – both points that are subject to state jurisdiction. Therefore, while it might be argued that both approaches could still have some impact on wholesale transactions, any impacts would be an *indirect* result of the regulations, unlike the First Seller approach. For this reason, and particularly in light of the state's interest in promoting the health and safety of its citizens, a challenge under the FPA would be difficult to sustain.

⁴⁴ *Id.* at ¶ 61,005.

In summary, assuming regulation of GHGs, like RECs, is a matter of state law, the success of any challenge under the FPA would be very unlikely. If impact on wholesale transactions is evaluated, the following observations can be offered:

- Since the point of regulation under the First Seller approach resides with entities engaged in wholesale transactions, this market design approach will be the most vulnerable to challenge under the FPA.
- Given that in-state generation and regulation of LSEs are excluded from the scope of FERC regulation under the FPA, the Load Based approach and Hybrid approach are largely insulated from challenge.

While most vulnerable to challenge under the FPA, it is unlikely that a challenge to the First Seller approach would succeed. Impact analysis indicates that potential for challenge under the FPA should not prevent consideration of any of the regulatory approaches.

VII. ANSWERS TO SPECIFIC QUESTIONS.

EPUC/CAC provide responses to most but not all of the questions posed in the ALJ Ruling. Answers have been omitted where EPUC/CAC defer to the expertise of other stakeholders or where time simply was not sufficient to allow development.

A. Basic Definitions.

1. *Is the above description of this deliverer/first-seller approach accurate? Comment on whether you agree with this description, and if not, explain how the first-seller approach should be described differently and why.*

Overall this description is accurate. The First-Seller approach is the closest approximation possible to a source based approach, i.e. source based for all in-state generation, while imports are effectively treated as sources. See Section V.B. above for further description of the First-Seller approach and a request for

clarification of the treatment of in-state generation making its first sale out of state.

2. *For imports, who has ownership of electricity when it enters California? Is the "Purchasing/Selling Entity" (on the North American Electric Reliability Corporation (NERC) E-tag) listed at the first Point of Delivery in California the deliverer/first seller? If this is generally the case, are there any exceptions?*

Because of the confidentiality restrictions related to power purchase contracts and tagging data, EPUC/CAC do not have access to the information necessary to directly respond to this question. It is, however, EPUC/CAC's understanding that the NERC E-tag data identifies each seller and purchaser from source to sink, allowing identification of the entity that first delivers into California. The E-tag would also allow for the source of the import to be traced to the originating Control Area or Balancing Area.

3. *Are there any inter-Balancing Authority imports not accounted for by E-tags? If so, describe these instances and explain how these imports can be accounted for.*

Because of the confidentiality restrictions related to power purchase contracts and tagging data, EPUC/CAC do not have access to the information necessary to directly respond to this question.

4. *What agency could/would identify importing contractual parties? Is there already a state or federal official compilation of these market participants?*

The CAISO and other balancing authorities within the state would be the best entities to identify these parties. Additionally, the WECC could also be a source for this information.

5. *Could the deliverer/first-seller be identified by means other than the NERC E-tag? If so, please explain.*

EPUC/CAC are not aware, at this time, of another means that would serve as viable substitute for E-tags.

6. *How would a deliverer/first-seller system deal with power marketers and brokers?*

See Section V.B. Generally, power marketers and brokers would be deemed First Sellers for imports of power into the state.

7. *How would treatment of imports differ in a deliverer/first-seller system compared to a load-based approach?*

See Sections IV & V. The point of regulation for imports would be one level nearer to the source generation under First-Seller system, making it preferable from a policy standpoint when compared with a Load-Based approach. The practical effect is that keeping track of actual emissions from generation may be simpler and more transparent. In addition, the allowances for imports would be controlled by the purchaser under the Load Based approach

and by the importer under the First Seller approach. Finally, both approaches, however, carry the problems with imports in determining how to account for unspecified resources.

8. *To sum up your answers to the previous questions, provide a succinct but complete definition that identifies, for each way in which electricity could be delivered to the California grid, the entities that would be responsible for compliance with AB 32 regulations under a deliverer/first-seller approach.*

See Section V.B.

B. General Policy Issues.

9. *Compare and contrast the environmental integrity of a deliverer/first-seller and a load-based approach. How would a deliverer/first-seller approach address leakage? How would a deliverer/first-seller approach address contract shuffling?*

In AB32, leakage is defined as “a reduction in emissions of greenhouse gases within the state that is offset by an increase in emissions of greenhouse gases outside the state.” In contrast, contract shuffling refers to an accounting reallocation of a fixed quantity of GHG emissions (for example, total emissions over one year) in which emission reductions reported by one party in a capped system are achieved through the attribution of emissions to an entity outside the capped system. In the case of contract shuffling, total emissions may not increase, but they also would not decrease, as required by AB32.

Simple leakage is dealt with equally by the First Seller and Load Based approaches, and by the Hybrid approach, because allowances are required for imported electricity in the same way they are required for in-state generation. As the MAC observed: “[b]oth would have to rely on information provided under contracting mechanisms that bring power into California to account for out-of-state emissions and both rely on some degree of approximation to establish the emissions intensity of power received at the border.” (MAC Report at 44). In any case the risk of leakage remains to the extent that emissions from unspecified source contracts are subject to estimation and these types of contracts remain a material portion of imported supply.

Likewise, neither the Load Based nor First Seller approach provides a superior solution for contract shuffling. As the MAC Report observed, “[b]oth the load-based and first-seller approaches appear to provide similar incentives for contract shuffling.” (MAC Report at 44). The same would be true of a Hybrid approach. There is simply no approach that would permit California to verify beyond its border the contract shuffling is not occurring. This problem can be addressed in forming a regional approach to carbon mitigation.

10. *Would the scale of possible emissions leakage or contract shuffling differ under the deliverer/first-seller approach compared to a load-*

based approach?

As noted in response to Question 9, both approaches provide equal incentives for leakage or contract shuffling to occur.

11. *Is there any advantage to applying the deliverer/first seller approach to reporting only, while having the retail providers be the point of regulation (as with load-based)? Why or why not?*

This approach would carry all of the disadvantages of Load-Based regulation (see Section IV) with the added complication of reconciling first sales to LSE purchases.

12. *Compare and contrast the deliverer/first-seller and load-based approaches in terms of their impacts on electricity prices, costs, and reliability for consumers.*

The answer to the question regarding retail price and service impacts depends more materially upon the allocation methodology than the point of regulation. As the MAC concluded: *"the consumer price impacts under both approaches depend on whether allowances are auctioned or given away for free and, if they are given away for free, to whom they are offered."* Without modeling, it is difficult to have any degree of certainty about how and the extent to which different approaches might affect retail prices. A few observations can be offered:

- In a Load-Based program and free allocation, there likely would be no direct consumer price impact on utility customers from a flow-through of allowance costs by the LSE under cost-based regulation. Retail prices for LSEs serving DA, likewise, would be constrained by competition with LSE rates. The Commission must consider, however, whether failing to provide a price signal to consumers for the carbon impact of their consumption is a prudent policy.
- A Load-Based program under an auction would result in direct and immediate consumer price impacts at the consumer level. Allowance costs, reflecting the marginal cost of emissions reductions, would be passed through under cost-based regulation and, in all likelihood, by DA competitors.
- A First Seller or Hybrid approach under an auction would result in direct allowance costs to power producers or marketers. While the extent to which these costs would be perfectly reflected in market prices is not foreseeable, there would be a commensurate impact on wholesale market prices. Consequently, an increase in price to consumers likely would occur.

Either approach could create disincentives to invest in CHP self-generation. This problem arises because the electricity related emissions for a gas-fired CHP facility – although lower than other marginal alternatives – would be higher than the portfolio average of the utility. In other words, the carbon cost reflected in purchases from the utility would be lower per unit than a CHP facility because the

utility portfolio is dominated by provider investments, (which are unlikely to be currently available, particularly to competitive suppliers: nuclear and large hydro facilities.)

13. *Would a deliverer/first-seller approach and a load-based approach have different impacts on wholesale power prices? Which would result in higher prices? Why? Is this good or bad?*

The answer to the question regarding wholesale price and service impacts depends more materially upon the allocation methodology than the point of regulation. Without modeling, it is difficult to have any degree of certainty about how and the extent to which different approaches might affect wholesale electricity prices. It seems obvious even without modeling that to the extent allowances are auctioned, the scarcity of allowances in the power sector due to compliance factors and the point of regulation placed on the source or First Seller will cause wholesale market prices to increase.

14. *What impact would a deliverer/first-seller approach have on long-term investment in low-GHG emitting generation technologies? Is this better or worse than under a load-based cap? Why?*

The First Seller or Hybrid approach likely would increase investment in low-emitting generation technologies. For existing sources, investment in repowering projects or aftermarket technologies would directly lower the source's compliance obligation and, consequently, operating costs. For new market entrants, the lower carbon cost for low-GHG emitting technologies would be taken into account in investment decisions under a First-Seller or Hybrid approach because the cost would be known and transparent. For either an existing source or new entrant, however, a Load Based approach will dampen investment decisions. The dampening effect arises because the value of carbon reducing investments is less transparent; the price signal is averaged and diluted in the LSE portfolio.

CHP, a low-GHG emitting fossil technology, would suffer under the Load Based approach for purposes of grid sales, as there would be a separation between CHP owners and their capital expenditures and the regulated party (LSE). Therefore, the cost of compliance and certainty of return on investment would be separated, which would likely lead to poor economic rationalization. In simpler terms, the LSE would have the power to decide whether to buy from a CHP unit or not based on the LSE's carbon-compliance costs, not on the source's compliance costs. (Note that it remains unclear how CHP serving on-site load would be treated under a Load Based approach).

Again, for the First Seller approach, it is not clear how CHP for on-site consumption would be treated. Assuming, however, that the CHP facility would be treated as a First Seller for these purposes, the First Seller approach would provide a direct price signal to the industrial facility regarding the carbon value of CHP investment or repowering.

15. *How would a deliverer/first-seller approach interact with an upstream program design as articulated in Chapter 4 of the Market Advisory*

Committee report? Explain your answer in detail.

Chapter 4 of the MAC Report discusses four different programs of regulation. Programs 2-4 include varying degrees of upstream regulation: gasoline and diesel supply (2-4); combustion at small industrial, commercial and residential levels (3-4); and all fossil fuel combustion, including large sources (4). EPUC/CAC have reservations about how a multi-sector trading program would operate when allowances are allocated at different points of regulation. These comments will ignore this issue, however, and address as a matter of first impression the practical compatibility of the First Seller approach with all three Programs.

A First Seller approach in the electricity sector would generally be compatible with Programs 2 & 3.

- There is no overlap in the production or use of gasoline and diesel and the production and sale of electricity, and First Seller would be compatible with Program 2. The only fine point that would require review is ensuring that First Seller treatment of electricity sold to electric vehicles did not affect competition with other vehicle fuels.
- Likewise, as the Commission is considering now, combustion emissions by small industrial, commercial and residential customers could be carved out into a separate natural gas sector regulation and regulated at the point of gas distribution. The only requirement to make this compatible with a First Seller approach would be to exclude natural gas supplies delivered to generation facilities to avoid duplicative regulation of generation combustion emissions.

A First Seller approach would not be compatible with Program 4. While not entirely clear, Program 4 appears to regulate the emissions from combustion by an in-state EG at the fuel supply level (e.g., natural gas or coal supply). Regulating the fuel used for in-state generation combustion would be duplicative to regulation of the First Seller of electricity for power from those sources. Program 4's treatment of electricity imports is unclear, so it may or may not be compatible with a First Seller approach for imports.

16. What impact would a deliverer/first-seller approach have on electricity service providers?

An ESP that is both a wholesale marketer and LSE would bear a compliance obligation in its wholesale trading activities and bear any price impact on the wholesale market in procuring as an LSE. EPUC/CAC look forward to the comments of the Western Power Trading Forum and other ESPs on this point.

C. Interaction with Energy Markets.

17. Compare and contrast the impact that a deliverer/first seller and a load-based system would have on the existing wholesale energy markets, both at the California Independent System Operator (CAISO) and outside of it.

The application of any cap could remove supply from the market. Alternatively, if there is a system for acquiring and trading allowances, a

generator may incur additional cost in order to comply with any mitigation program. If the mitigation program is part of a regional program, all bilateral markets would feel upward cost pressures in order to comply with the standard whether it be load based or source based. If the program is just local to California, a load-based approach may have less of a direct impact on bilateral market prices since the LSE will be taking into account its entire portfolio of resources in acquiring power. Under these circumstances, the real emission value may not be reflected in the price. However, under a source based (or first seller) approach, the generator would fully take into account its emission costs in its pricing considerations.

As to the impact of either approach on the ISO markets, the California ISO is not an LSE. Nor is it generally the first seller within the state. Neither approach would impose a regulation directly upon the ISO as it operates its markets.

As to the price charged for energy in any ISO market, the application of any cap would definitely have an impact unless all existing generators already comply with the standard. Prices could increase under a cap and trade system either to cover the cost of allowances or to recover the generator investment to make the necessary improvements in efficiency and emissions. The ISO markets settle at market clearing prices, so the highest bid in any interval sets the price. Older, less-efficient generating units or coal-fired units may produce cheaper energy, and may also have comparatively higher emissions than other generating units. Historically, they would not have set the market-clearing price. However, an infra-marginal coal unit could well become a marginal unit under a source based system where it had to include the emission costs in its bid. Further, elimination of any infra-marginal unit would likely cause a higher price unit to become the marginal unit with an associated higher price.

18. *For those entities participating in the CAISO markets, what would be the likely differential impacts of a deliverer/first-seller versus a load-based system on the CAISO's implementation of the Market Redesign and Technology Update (MRTU) system, including day-ahead and real-time markets for energy, transmission, and reserves?*

The imposition of either of the approaches will not have a direct impact on the mechanics of implementation of MRTU, assuming that the ISO is not found to be a "first seller." However, it will have impacts on prices in the operation of MRTU. As explained in the answer to Question #17 above, the imposition of a mitigation strategy may raise prices generally in a wholesale market, impacting the price of energy procured in the ISO markets. Under MRTU, LSEs can self schedule or simply allow their units to bid into the market. Under a load-based approach, all "clean" units would likely be self scheduled while units over the emission allowance would be bid into the market. Under a source/first seller method, whereby the emissions costs are incorporated into the bids, all units could be bid. This could change the merit order dispatch for the entire system.

A source based approach would have a direct impact on nodal prices calculated for Locational Marginal Pricing, while a load based approach may not. This may have significant localized effects on LSEs procuring at those nodal points.

19. *To what extent would either approach (deliverer/first seller or load-based) be likely to alter the dispatch of existing generation units in the near-term? Why? If there is a difference between the approaches, how significant would it be?*

As explained above, the application of a cap and trade program will likely raise the cost of energy and affect the dispatch of units. Without running production simulation modeling it is difficult to predict the magnitude of that price increase or the time frame in which it will occur.

The source-based system would appear to impose costs more directly on individual generators and to provide a more accurate price signal; it may be more likely to affect system dispatch.

On the other hand, the load-based approach is applied to the LSE. The LSE has some latitude as to which individual resources it procures. Its goal is to meet a cap for its overall portfolio, not a cap applied to each individual unit. The LSE therefore could procure from a non-complying resource if it offsets those higher emissions with procurement from a lower- or zero-emitting resource. For this reason, it is harder to predict the impact of a load-based approach on the dispatch of resources.

D. Interaction with Existing Programs and Policies.

20. *How would a deliverer/first-seller approach interact with the Public Utilities Commission's Resource Adequacy requirements and procurement/portfolio oversight? How would this approach affect efforts to maintain resource adequacy by the publicly-owned utilities (POUs)?*

EPUC/CAC look forward to the comments of the LSEs and other RA stakeholders.

21. *How would a deliverer/first-seller approach interact with the Public Utilities Commission's promotion of end-use efficiency? How would this approach affect energy efficiency programs for the POUs? Under which system (deliverer/first-seller or load-based) would the penetration of end-use efficiency likely be greater? Why?*

A First Seller approach would not directly recognize energy efficiency (EE) reductions. Energy Efficiency targets, however, could be maintained as separate programmatic measures with rewards to utilities and users who achieve reductions. A Load Based approach may provide an LSE with some incentive to fund EE improvements at customer sites if the cost is lower than alternative compliance. This incentive, however, would arise only if a mass emissions cap were used. A benchmark Load Based approach would not provide similar incentives for EE

reductions because EE removes load from the portfolio but may or may not alter the average emissions rate in the portfolio.

22. *How would a deliverer/first-seller approach interact with the State's Renewable Portfolio Standard requirements (both existing and proposed)?*

The First Seller approach would encourage renewable resource development by relatively lowering the cost of zero carbon energy production. Because the RPS benefits would not be recognized directly by the First Seller approach, the Commission could retain the RPS as a separate programmatic measure to reduce GHG in the electricity sector.

23. *How should renewable energy generators be treated under a deliverer/first-seller system?*

For a zero emissions facility, no allowances would be required. The facility would benefit from the increased competitiveness and desirability of its electricity, but no regulatory burdens would presumably be imposed by a cap and trade system.

24. *Compare and contrast the impact of a deliverer/first seller and a load-based approach on the voluntary renewables market.*

EPUC/CAC look forward to the comments of the LSE's and renewable generators.

25. *Would one approach (deliverer/first-seller or load-based) have an advantage over the other in producing the greatest amount of emissions reductions through modifications (e.g., retrofitting, efficiency improvements, etc.) to existing power plants? Why?*

See Response to Question 14. The First Seller and Hybrid approaches provide a more direct price signal to the firm with compliance responsibility regarding the value of emission reduction measures. Moreover, an investment in repowering, retrofitting or other efficiency improvements at the source would have a direct impact on the source's carbon compliance costs under the First Seller or Hybrid approach. (Under a Load Based approach the impact would be unknown or muted within the LSE portfolio.) Consequently, California could expect the First Seller or the Hybrid approach to produce better results in emissions reductions through modifications.

Section E – Reporting, Tracking and Verification.

26. *What would be the data and administrative requirements of the deliverer/first-seller approach?*

In the context of the First Seller approach, EPUC/CAC support the use of the mandatory reporting and verification approach currently under development by CARB. Specific regulations as required by AB 32 are still under development;

however, on a general level, facilities will be required to report data likely to include the following:

- Party with operational/management control reports.
- Fuel type and consumption.
- 6 Kyoto gases.
- Rated capacity and actual generation.
- Heat content and carbon content (if measured).
- Certain fugitive and process emissions.
- Purchases and sales.

Additionally, CHP facilities would report:

- Fuel type and consumption.
- Rated capacity and actual generation.
- Total power output, including on-site usage, exported to the grid and over the fence.
- Thermal energy output, including on-site usage, and delivered to host.
- Electric purchases.
- CO₂, N₂O and CH₄ emissions.
- Emissions allocated to each energy stream.
- Utilities/industry purchasing from CHP facilities would report purchases.

Additional data requirements for CHP should only be imposed to the extent necessary to support CARB regulation of industrial emissions. It is also important to note that data regarding industrial operations and energy requirements are proprietary and commercially sensitive and should be retained by the relevant agency as confidential.

EPUC/CAC have participated actively in the ongoing development of the mandatory reporting regulations and are comfortable with the proposed requirements thus far. Verification requirements for emissions reporting are also under development by the CARB, and EPUC/CAC are amenable to the approach being developed.

In these comments, however, EPUC/CAC recommend a Hybrid approach. Under this system, the CARB would enforce the source-based GHG emissions reduction requirement mandated by AB 32 to capture in-state emissions, and the Commission would establish a separate emissions-based procurement requirement for LSEs which would capture emissions from imports. Under this Hybrid approach, the most sensible reporting scheme would be for the LSE to report total import emissions to the Commission using the data required to be reported to the CARB. For known sources, the emissions calculation will be straightforward. With regard to imports/unknown sources, EPUC/CAC acknowledges that under any system emissions from imported electricity will be difficult to calculate until other states implement similar emissions reduction

requirements. However, EPUC/CAC do not have a specific recommendation for how such emissions should be calculated but reserves the right to comment on assignment of default emissions at a later time.

- 27. How would the deliverer/first-seller approach relate to the Public Utilities Commission/Energy Commission Staff reporting protocol proposal, i.e., would the deliverer/first-seller approach require modifications to the Staff reporting proposal, or could it serve as an interim reporting protocol? If modifications are required, what exactly would they be?*

The CPUC/CEC proposed reporting protocol is not compatible with the First Seller approach because the Commission's proposal assumes a load-based approach, which places the reporting burden on a different party. However, to the extent that the Commission's proposed reporting protocol addresses imported power, it could be applied where the First Seller in California is not the generator. EPUC/CAC do not have any specific comments with regard to the Commissions' proposed treatment of imported power.

In the context of CHP, the proposal defers to the CARB with regard to the method for allocating emissions between energy streams. However, under the Commission's proposal, the retail providers would be required to report the emissions allocated to the generation sold to the grid. The proposal adds a duplicative layer of reporting as the ARB approach would already require utilities/retail providers to report indirect emissions resulting from purchased CHP generation.

- 28. If a deliverer/first-seller approach is adopted, what would be the pros and cons of requiring reporting both from deliverers/first sellers and retail providers, in order to provide ARB with multiple control data sets for comparison?*

The CARB appears to favor double reporting of emissions in some situations. For example, with regard to CHP, the CARB will require the facility to report thermal and electric sales while also requiring the purchasers to report. To the extent that this provides a system of checks and balances in addition to the verification process it could be beneficial to require reporting by both first sellers and retail providers. However, there is an additional administrative burden associated with reporting of emissions by retail providers for facilities not owned by such providers or where data to calculate emissions is not readily available. Further, data accuracy can be compromised as the reporting entity gets farther away from the source.

- 29. Compare and contrast the ability of a deliverer/first-seller and a load-based system to create confidence for investors and confidence for environmental advocates about tracking and compliance.*

In the context of First Seller versus Load Based systems, the approach with the most direct reporting of emissions will create the most confidence for investors and/or environmental advocates. In this instance, the First Seller approach would provide more confidence as the reporting is essentially source based for in-state resources. However, to inspire additional confidence among investors and environmental advocates by ensuring accounting for imports, the Hybrid approach should be adopted.

With the Hybrid approach, the market for carbon allowances will be more transparent as the bulk of allowances will be held by direct emissions sources similar to other sectors where sources will be regulated directly. LSE emissions allowances for imports will be allocated in a manner consistent with the allocation of allowances for in-state power. Under any accounting system, the issue of imports is what creates uncertainty. EPUC/CAC acknowledge this issue but do not have a specific recommendation for how the Commission should establish emissions for such power.

30. *Who/what governs access to the purchasing/selling entity data on the NERC E-tags? What would a state agency need to do to obtain access to E-tag data?*

EPUC/CAC do not have any information relevant to answering this question.

31. *What role would the CAISO play, if any, in the implementation and administration of a deliverer/first-seller program? What role would other control area operators or balancing authorities play?*

Control area operators will have data as to the transactions scheduled into and out of their control areas, which will be relevant in identifying first sellers.

F. GHG Emissions Allowance Allocation Issues.

32. *Would implementation of a deliverer/first-seller approach necessitate auctioning of GHG emissions allowances? Why or why not?*

No. See Section V.

33. *If you do not believe that an auction would be required under the deliverer/first-seller approach, explain how an emissions allocation system would work under a deliverer/first-seller approach. In doing so, answer the following:*

See Section V.

- a. *To whom would allocations be given?*
- b. *If you recommend allowances be given to deliverers/first sellers, on what basis would allocations be given during any particular*

compliance period?

- c. How would the state of California know how many allowances were needed by importers?*
- d. How would marketers be treated?*
- e. How would electricity service providers be treated?*
- f. Would zero-carbon generators also receive allowances?*

No. A zero-carbon generator would have no compliance obligation and thus need no allowances. The benefits of zero carbon power would arise in eliminating a carbon compliance cost from the entity's cost structure.

- g. What would be the likelihood of windfall profits under such a system?*

The potential for windfall profits is difficult to predict. A few observations, however, can be made. Competition among resources to serve California native load limits the ability of these resources to extract windfall profits. In addition, the regulatory regime in California mitigates against the LSEs making windfall profits; the utilities' rates are set using cost-based regulations, and competing LSEs are constrained by utility rates as a benchmark for competition.

- 34. If you recommend allocation of allowances to retail providers, followed by an auction to deliverers/first sellers, how would such an auction be administered? What kinds of issues would such a system raise?*

EPUC/CAC do not recommend the allocation of allowances to retail providers with auction of allowances to deliverers/first sellers.

G. Relationship to Other Sectors Under AB 32 in California.

- 35. Would GHG emissions allowances created under a deliverer/first-seller compliance regime in the electricity sector be compatible for trading with other sectors in the California economy, assuming a multi-sector cap-and-trade system? How?*

Ideally, for a multi-sector cap and trade system to work transparency is required. The greatest amount of transparency would be achieved if all emissions were regulated at the source. However, as AB 32 requires imported power to be considered this is not an option since California cannot regulate out of state sources directly. But because the First Seller approach, or the Hybrid approach, is tailored as closely as possible to a source based approach either of these approaches would be more compatible with other sectors than the load Based approach.

H. Relationship to a Multi-State System Such as the Western Regional Climate Action Initiative.

36. Compare and contrast the ability of a deliverer/first-seller and a load-based approach to avoid double-counting of emissions between states.

In the case of a multi-state system, a source based approach would provide the most accuracy and help to limit the double-counting of emissions. To the extent that the bulk of power generated within a region is also consumed within that region, a source based approach would account for those emissions directly. Until there is a national program, however, any state or multi-state region will be forced to address the issue of accounting for emissions produced outside of its regulatory purview. Where emissions are produced in a state that has no emissions cap or reduction program the emissions can easily be accounted for either with information provided by the generator or with default values.

When emissions are produced in a state under a different regime care needs to be taken to ensure that double counting does not occur. At the same time, care must also be taken to ensure that the emissions allowance market is not distorted in the name of preventing double counting. For example, assume California adopts a First Seller approach and Oregon retains the Load-Based approach. Next, assume Oregon allows imports from California to be counted as zero-emissions, assuming that they have already been accounted for in California as a First Sale. Under this scenario, Oregon's market becomes distorted because the emissions baseline is calculated based on load, but capped entities are getting imported power from California for free in terms of allowances. To ensure that emissions are not double counted, some form of tagging could be used; however, California should coordinate with neighboring states to resolve this issue.

For California, while a source-based approach would be the most desirable, a First Seller approach is the next best choice as it more directly counts emissions and would more easily integrate with a multi-state system.

37. How should exports from California be handled under a deliverer/first-seller approach? Would the proper treatment of exports depend on whether the receiving state has a cap-and-trade system? If so, how?

Under a first seller approach the ultimate destination of the power is not an issue in terms of counting emissions. This approach is designed to account for emissions produced and consumed in the state. There may be an incidental effect, however, where imports not consumed in the state are captured; if an import enters California as a First Sale and then is exported, arguably this power should not be regulated. Consideration should be given to an e-tag attribute that could reverse the surrender of allowances in this instance.

To the extent that California may export power to states with different emissions regulation schemes (such as load based) the counting of exported/imported

emissions could be challenging and double counting could become an issue. This underscores the necessity for a coordinated approach within the region or preferably the nation.

A Hybrid approach would eliminate this problem. It would ensure that only emissions produced in the state and out-of-state emissions from power consumed in the state would be included within the scope of regulation.

38. If some states in the region adopt a source-based system (or a load-based system which also regulates exports), how would the State of California verify the true source of imports in order to avoid double-regulation of power imported from other capped states?

The issue of avoiding double regulation of imported power could be avoided entirely through the adoption of a source-based system in the region or in the nation. However, if another state in the region adopts a source based system and California retains the first-seller approach, treatment of cross-border emissions becomes an issue. California will need to coordinate closely with other states to ensure that the disparate systems do not distort the market for allowances or lead to contract shuffling. In terms of verifying the origin of an import, use of E-tags seems to be the most sensible method. The UK has used Renewable Energy Guarantee of Origin certificates for similar purposes, which could provide a model.

39. How would a deliverer/first-seller approach function relative to an Oregon load-based system (as currently proposed by Oregon)?

There are three significant ways the systems in Oregon and California would interact: (1) trading of allowances; (2) assigning emissions values to unknown power from neighboring states; and (3) determining treatment of imports to avoid double counting of emissions. To the extent that a regional approach has not been enacted, any system adopted for California will operate relatively independently from that adopted in Oregon.

Presently, Oregon is proposing a load based cap due in part to regulation concerns related to the status of the Bonneville Power Administration as a federal entity. Under the proposed approach, emissions for each "capped provider" will be determined based on load and the provider's resource mix. The emissions requirement will be met through the use of allowances, some of which will be auctioned and some of which will be allocated. Oregon issued the Median Carbon Allocation Proposal on December 15, 2006. Since its issuance, the proposal has been refined in the form of HB 3545, which was introduced to the 2007 Oregon Legislature. In the legislation, "capped providers" may only meet emissions requirements with allowances issued by the Oregon Department of Energy unless otherwise determined by DOE rule. In addition, capped providers cannot sell allowances to out of state entities unless DOE rules otherwise. Unless and until such a rule is established trade of allowances between Oregon and California is precluded on the Oregon side.

The primary problem, as with most approaches addressing imports, will arise with regard to unspecified resources. Oregon's Median Carbon Allocation Proposal assigned such sources an emissions value equal to the net system power mix for the Northwest Power Pool. However, HB 3545 deferred final judgment on the issue and assigned the Department of Energy (DOE) the task of establishing a methodology for assigning default emission values. Regardless of the approach adopted, either state must address the issue of assigning default emissions values to unknown or unspecified power. Until a uniform multi-state system has been adopted California and Oregon will rely on their respective default emissions factors.

The issue of how to address imports/exports under disparate systems is more difficult. From the California regulatory perspective, the Oregon load based cap does not conflict with the first seller approach for imports into California. As proposed, the Oregon program does not appear to regulate exports of power. However for exports from California into Oregon the issue of double counting emissions arises. As discussed in question 36 above, California and Oregon will need to coordinate with regard to treatment of emissions related to power produced in California and exported to Oregon.

I. Interaction with Potential Federal Regulation.

40. *How easily could a deliverer/first-seller approach scale or link to multi-state, national, or international programs?*

To date the source-based approach is the more prominent form of GHG regulation. A First Seller approach bears more promise for integration than a Load Based approach because it effectively regulates all California sources directly. To the extent the region may adopt a source based model, the First Seller approach would be most easily adapted to a source based program at the end of any compliance period. A Hybrid approach, to an even greater degree, would provide for linkage and ease of transition because a full, source-based approach would be in place for in-state sources.

41. *Would one approach (deliverer/first-seller or load-based) be easier to transition into a potential federal GHG regulatory system? If one would be superior in this respect, explain why and what assumptions you are making about the likely federal framework.*

The answer to this question requires an assumption regarding the direction of future federal legislation – whether, when and what form the legislation will take. If the national program is source based, a First Seller or Hybrid approach would be most compatible. The EPUC/CAC crystal ball is not sufficiently clear, however, to venture a guess beyond this observation.

42. *What are the merits of the deliverer/first-seller proposal as a model for other governments' efforts, particularly at the national level?*

Once again, all indications point to the superiority of a source based approach to

GHG regulation. In this case, neither a First Seller nor a Load Based approach would serve as a pure model for other efforts, since neither is optimal in terms of accuracy and ensuring emissions reductions. If the state is looking to take leadership in other governmental efforts, California should consider the adoption of the Hybrid model.

J. Questions for Legal Briefing.

In response to each question in this section, cite relevant case law and/or Federal Energy Regulatory Commission (FERC) rules or regulations, and provide analysis.

Federal Power Act

43. *Would the Federal Power Act preempt adoption of the deliverer/first-seller approach? Why or why not? Does it make any difference that the federal government has not issued any regulations in this specific area?*

See Section VI.B.

44. *For purposes of your legal analysis of the previous question, would your opinion differ if the deliverer/first seller were the reporting entity only and not also the point of regulation? Why or why not?*

As discussed in Section VI.B, the FPA preemption argument for the First Seller approach is not compelling. Making the point of regulation a source or an LSE, however, would tilt the analysis further from a finding of preemption by eliminating any direct cost that might be associated with a wholesale transaction. The benefits of First Seller reporting only are not apparent.

45. *Could the deliverer/first-seller approach be designed or implemented in a way that would avoid or lessen problems under the Federal Power Act? If so, how?*

See Section VI.B.

46. *Compare Federal Power Act issues under a deliverer/first seller approach and a load-based approach.*

See Section VI.B.

47. *If you conclude that Federal Power Act preemption would be a problem, could FERC action (e.g., approval of a CAISO tariff rule) ameliorate this problem? If so, what specifically could FERC do?*

See Section VI.B. FERC could make a finding, as it did with Renewable Energy Credits, that GHG allowances are a matter of state creation and regulation.

Could FERC ameliorate any Federal Power Act concerns related to

publicly-owned utilities?

EPUC/CAC look forward to the comments of the state's publicly-owned utilities.

48. *Does the deliverer/first-seller approach raise problems under the dormant Commerce Clause?*

See Section VI.A.

49. *Could the deliverer/first-seller approach be designed or implemented in a way that would avoid or lessen problems under the dormant Commerce Clause? If so, how?*

See Section VI.A.

50. *Are issues under the dormant Commerce Clause more or less serious under a deliverer/first-seller approach compared with a load-based approach? Explain.*

See Section VI.A.

51. *The Market Advisory Committee report suggests that the value of GHG emission allowances "can be used to fund innovative emission reduction technologies and to focus pollution-reduction efforts in low-income and minority communities" or "can be utilized to provide transition assistance for workers and industries subject to strong market pressures from competitors operating in jurisdictions that lack similar caps on greenhouse gas emissions" (Market Advisory Committee report, at iv - v) or "should be directed to investments in end-use efficiency improvements" (Id., at 54). Would these uses raise problems under the dormant Commerce Clause? Would these problems be more or less serious under a deliverer/first-seller approach compared with a load-based approach?*

EPUC/CAC have not had sufficient time to explore this question.

Authority to Auction

52. *Does ARB have the authority, under AB 32 or any other statute, to auction allowances to emit greenhouse gases? Explain.*

EPUC/CAC have not had sufficient time to explore this question.

Other Legal Issues

53. *Are there any other legal issues that the Public Utilities Commission and the Energy Commission should consider?*

No, EPUC/CAC see no additional legal issues that would be unique to the electricity sector at this time. Interaction with the Clean Air Act should be considered, however, at the multi-sector level.

August 6, 2007

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Evelyn Kahl". The signature is fluid and cursive, with the first name "Evelyn" and the last name "Kahl" clearly distinguishable.

Evelyn Kahl
Michael Alcantar

Counsel to the Energy Producers and
Users Coalition and the Cogeneration
Association of California

CERTIFICATE OF SERVICE

I, Karen Terranova hereby certify that I have on this date caused the attached **Comments on the Market Advisory Committee Report of the Energy Producers and Users Coalition and the Cogeneration Association of California** in R.06-04-009 to be served to all known parties by either United States mail or electronic mail, to each party named in the official attached service list obtained from the Commission's website, attached hereto, and pursuant to the Commission's Rules of Practice and Procedure.

Dated August 6, 2007 at San Francisco, California.

A handwritten signature in black ink, appearing to read "Karen Terranova", with a long horizontal flourish extending to the right.

Karen Terranova