DOCKET 07-OIIP-01
CALIFORNIA ENERGY COMMISSION
COMMENTS OF PACIFIC GAS AND ELECTRIC COMPANY (U 39 E) ON REPORTING AND TRACKING OF GREENHOUSE GAS EMISSIONS IN THE ELECTRICITY SECTOR

CHRISTOPHER J. WARNER

Pacific Gas and Electric Company
77 Beale Street
San Francisco, CA 94105
Telephone: (415) 973-6695
Facsimile: (415) 972-5220
E-Mail: CJW5@pge.com

Attorneys for
PACIFIC GAS AND ELECTRIC COMPANY

Dated: August 24, 2007

DOCKET 07-OIIP-01
CALIFORNIA ENERGY COMMISSION
COMMENTS OF PACIFIC GAS AND ELECTRIC COMPANY (U 39 E) ON REPORTING AND TRACKING OF GREENHOUSE GAS EMISSIONS IN THE ELECTRICITY SECTOR

I. INTRODUCTION

Pursuant to Rule 14.6 of the Commission's Rules of Practice and Procedure, Pacific Gas and Electric Company (PG&E) provides its opening comments on the Proposed Decision (PD) on reporting and tracking of greenhouse gas (GHG) emissions in the electricity sector under AB 32. PG&E's comments are organized in the following sections below: (1) An "executive summary;" (2) Detailed comments on the PD; and (3) Recommended revisions to Attachment A of the PD, attached to these comments as Attachment A.

II. EXECUTIVE SUMMARY

The key points in PG&E's comments are summarized as follows:

- PG&E commends the staff for carefully considering the comments of parties, including PG&E. The PD reflects in large part the substantive and procedural changes PG&E recommended in its prior filings, especially the re-structuring of the reporting requirements to (1) ensure that the reporting requirements can support a "first seller/deliverer" point of regulation if adopted by the California Air Resources Board (CARB); and (2) confirm that the reporting requirements are interim and preliminary and will be revised and updated prior to 2012, in order to reflect more credible and acceptable methods for tracking and reporting GHG emissions prior to the effective date of emissions limits under AB 32. Ideally, the reporting requirements should be revised by January 1, 2009 consistent with CARB's issuance of its draft scoping plan for AB 32.

- However, the PD needs to be revised or clarified in four significant respects to ensure fair and accurate reporting, even on an interim basis.
    - First, the PD must be revised to delete the requirement that reported emissions from certain specified sources be the default emissions rate rather than the actual emissions from those sources in order to prevent retail providers from replacing existing higher emitting resources with existing lower emitting resources. There is no legal or policy justification in AB 32 for the reporting rules to be manipulated in this way to distort actual emissions in order to achieve a regulatory result. There will be an extensive opportunity for policymakers, including the CPUC, Energy Commission and CARB, to consider how AB 32 emissions limits and emissions reduction measures can be structured to avoid in-state or out-of-state "contract shuffling" among different regulated entities. However, the reporting rules are not the time nor place to consider this issue.
    - Second, the PD should be revised to defer recommendation of default emission factors provided at Table 1 of the PD until the

CPUC, Energy Commission and CARB hold further technical workshops this fall to evaluate the credibility and supportability of the methods and data used to establish the factors. Parties to the proceeding filed extensive comments disputing the methodology used for calculating the default emissions factors, particularly those for power imported from the Northwest, and the PD summarily rejects these comments without technical evaluation. (PD, at pp. 25- 31, Attachment B.) This is not reasonable because it ignores facts and disputed issues that need to be examined and resolved.

- Third, the PD should be revised to allow retail providers to claim all owned generation and all power procured under the Renewable Portfolio Standard (RPS) and Qualifying Facility (QF) as serving native load, without attributing any of this power to calculate the emissions rate for surplus sales. Emissions rates for sales should be based on the marginal resource in the market at the time the surplus sale is made by the retail provider, not arbitrary exclusion rules.
- Finally, certain of the definitions and terms in the PD and Attachment A should be clarified to ensure that the reporting rules do not prejudge the development of substantive GHG emissions regulations. For example, the definition of "marketer" should be revised to encompass all types of entities that would be covered

by a "first seller/deliver" form of regulation, and the PD should be clarified to confirm that entities reporting under these interim rules have not been determined to be responsible for compliance with GHG emissions limits or reduction measures by reason of being the entities required to report under the interim rules.

III. DETAILED COMMENTS

A. The PD Confirms that The Interim Reporting Rules Are Intended to be Able to Support The "First Seller/Deliverer" Approach If Adopted by CARB and Will Be Revised Prior to Adoption of Emissions Limits and Reduction Measures

PG&E's primary concern with the earlier proposals for AB 32 reporting rules was that the rules did not reflect or support the potential "first seller/deliverer" approach being considered by the CPUC, Energy Commission and CARB as a potential point of regulation for the electric sector. PG&E also was concerned that the earlier proposals did not recognize the need to revise and update the reporting rules to reflect more credible and accurate reporting methods and calculations that may be developed over the next months and couple years, especially as part of California's effort to develop coordinated reporting protocols with other states in the West.

PG&E is pleased that the PD reflects these two key concerns and provides interim reporting rules intended (1) to cover "first sellers" as well as retail providers; and (2) to be revised and updated prior to the effective date of AB 32 emissions limits to reflect the categories of entities subject to and reporting under the emissions limits. In order to make this clear in the PD, PG&E recommends the PD be clarified as follows:

(1) Revise the last sentence in the description of "Covered Entities" in section 1.2 of Attachment A to clarify that ***"the Protocol applies to all marketers and retail***

providers who own power and are the first entity to deliver or sell the power at a Point of Delivery in California, without regard to whether the marketer or retail provider serves end users in California."

(2) Add a new section 6.4 to Attachment A that provides that ***"This Reporting and Tracking Protocol is effective January 1, 2008 and will be subject to updating and revision by the Air Resources Board after notice and an opportunity for public comment prior to the Board's issuance of its scoping plan on or before January 1, 2009. Until such update and revision, entities that report under this Protocol are not deemed to be responsible for compliance with emissions limits or emission reduction measures merely because they are required to report hereunder."***

These changes will clarify and confirm that the reporting rules are indeed "interim" and do not in and of themselves determine compliance responsibility under AB 32,[1/] and that the entities covered by the rules include entities that potentially would be required to report their emissions under a "first seller/deliverer" approach.

B. The PD Must Be Revised To Delete The Use of Reporting Rules to Prohibit New Contracts With Existing Low-Emitting Resources

At pages 11- 21 of the PD, under the heading "Staff's Proposal to Ensure Real GHG Emission Reductions," the PD proposes to use the reporting rules as a means of regulating and restricting retail providers from entering into new contracts with existing

---

1/ As PG&E pointed out in its July 2, 2007, opening comments on the Joint Staff Proposal, the PD also must clarify that retail providers may not be legally obligated for the accuracy of emissions from sources, such as powerplants owned by third parties, over which the retail providers have no managerial or operating responsibility. See Heath and Safety Code section 38530(b)(1) and (2), distinguishing between "reporting" from "sources" and "account[ing] from "retail sellers." Because PG&E understands that Attachment A of the PD only requires retail providers to report quantities of electricity they know they have purchased from specified and unspecified sources, and not the emissions from those sources or purchases of which they have no knowledge, no legal issue under section 38530(b) should arise.

low-emitting resources and then reporting the emissions under those contracts as lower than emissions under prior contracts. This proposal is then included as part of the reporting requirements under section 3.3 and 3.4 of Attachment A.

Even if well-intentioned, this proposal is misplaced and misguided. The proposal devalues existing lower emitting generation and removes the ability of lower emitting generation to negotiate contracts with other retail sellers if the retail seller is to be allowed to claim the lower emissions. Additionally, it is not clear that there is a "contract shuffling problem" with new contracts with existing renewable and low-emitting resources that needs to be addressed under AB 32. AB 32 will limit greenhouse gas emissions in the electric sector in California, regardless of changes in the contracting for low-emitting and high-emitting resources. If one retail provider replaces a high-emitting resource with a low-emitting resource, and as a result the high-emitting resource contracts with a third party, it is the higher emitting resource that AB 32 is intended to regulate, not the lower emitting resource. If the higher emitting resource is shut down or obtains a lower market price by reason of being replaced by the lower emitting resource, that is exactly what AB 32 intends. If the higher emitting resource shifts to an out-of-state purchaser, that is a structural problem that AB 32 by design cannot reach, not a problem created by the low-emitting resource and its counter-party.

Furthermore, the PD's extension of the AB 32 reporting protocols to reach this regulatory result is not permitted by AB 32. Health and Safety Code section 38530(a) requires the CARB to adopt rules for the "reporting and verification" of GHG emissions from "greenhouse gas emissions sources." To the extent that a retail provider contracts with an existing renewable or low-emitting resource, the emissions from those resources can be accurately reported under the reporting rules, consistent with section 38530(a). However, nothing in section 38530(a) allows the reporting rules to be used to change the actual emissions to a fictional quantity of emissions that has no basis in fact, merely to solve a perceived regulatory problem.

Problems relating to "contract shuffling," both in-state and out-of-state, are worthy of consideration in the design of emissions limits and emission reduction measures. But the reporting rules are not the place or time to address the issue.

C. The PD Should Be Revised to Defer Adoption of Default Emissions Factors Until Further Technical Workshops Are Held This Fall

At pages 23- 32 and Table 1, page 4 of the PD, the PD would recommend specific numerical default emissions factors that would apply to emissions associated with in-state and imported sources of power for which actual emissions cannot be tracked or measured. As PG&E pointed out in its opening and reply comments on the Joint Staff Proposal, the numerical calculation of default emissions rates is controversial and disputed by many parties, given the magnitude of emissions that would be imputed in this manner and the potential for significant errors in total reported emissions if the emissions factors are erroneously calculated. (PG&E Opening Comments, July 2, 2007, pp. 15- 18; PG&E Reply Comments, July 10, 2007, pp. 2- 4.) Accordingly, PG&E recommended that the CPUC, Energy Commission and CARB convene additional technical workshops at which alternative proposals for default emissions factors could be discussed and subject to review and evaluation by interested parties. (PG&E Opening Comments, July 2, 2007, p. 3.)

Unfortunately, the PD ignores PG&E's recommendations and recommends default emissions factors without further technical development or discussion among parties. The PD also summarily rejects detailed critiques of the default emissions factor for Northwest power imports by the States of Oregon and Washington, reaching the factually erroneous conclusion that "the limited ability to store water, mean[s] that hydroelectric generation is often sold as a marginal resource by regional power administrators."

This conclusion is not supported by the facts. The Northwest Power Pool relies upon hydropower and fossil-fueled power in roughly equal amounts, (see data at http://www.nwpp.org/pdf/historical_data.pdf), and can readily curtail expensive fossil-fueled plants to take full advantage of regional hydropower. The notion that this hydropower must be sold to California is disputed by Oregon and Washington as well as PG&E. Attachment B to the PD also contains an erroneous conclusion. Attachment B (p. B-10) states: "California entities paid the higher price for non-firm hydro, which was priced closer to natural gas than to coal. No party disputes the fact that California paid for hydro." PG&E does not agree that California paid for hydro: California paid for MWh, regardless of source. Power is traded at hubs such as Mid-Columbia and the California-Oregon Border. The price varies daily, but does not vary with fuel type. Hydro, gas-fired, and coal-fired power all fetch the same price, despite the large differences in running cost between them. Non-firm hydro is indeed priced closer to the running cost of a natural-gas-fired plant than to the running cost of a coal-fired plant. Coal is also priced closer to the running cost of a natural-gas-fired plant than to the running cost of a coal-fired plant. The notion that California is paying a premium price for hydro is not supported by the facts.

Additionally, PG&E does not agree with the proposal in section 3.6 of

Attachment A that emissions from purchases from an unknown region use the highest of the three regional default emissions factor, that of the Southwest. Retail sellers purchasing power under a load based cap within California will have no way of distinguishing whether or not the power originates from within California or whether it is imported, including if the purchase is made through the CAISO's Integrated Forward Market (IFM).[2/] System power purchases within California should be assigned the default emissions rate of California and should be consistent with the emissions rate used in the IFM.

The calculation of default emissions factors is an extremely important element of AB 32. The PD's "rush to judgment" on these default factors, especially in the face of detailed critiques by other Western states as well as contradictory facts, would render the reported emissions so approximate as to have no practical purpose or use for AB 32 regulation. The PD should be revised as PG&E has previously recommended, and further technical workshops should be held to discuss the default emissions factor and seek a consensus and credible approach that CARB can rely on for its reporting rules by the end of this year.

D. The PD Should Be Revised to Allow Retail Providers to Claim All Owned Generation and Mandatory RPS and QF Purchases As Serving Native Load

The PD at pages 33- 35 and sections 3.1, 3.3, and 3.8 – 3.11 of Attachment A provides certain rules for calculating the emissions characteristics of surplus energy sales. The higher the emissions of these surplus sales, the lower the emissions attributable to the retail provider to serve its load, and vice versa. The PD and

---

2/ This problem would not occur under a first seller approach because there is no need to track purchases of generation from in-state sources.

Attachment A would forbid retail providers from claiming owned generation as serving native load unless the generation is a baseload plant running at a 60 percent or greater capacity factor, a California-eligible renewable resource, or a "low-cost, must run" resource. Generation not meeting these criteria would be used to set the average emissions factor for emissions from energy sales, thereby raising the emissions attributable to retail provider's native load customers. However, in doing so, the PD would exclude certain "shaping" or "peaking" units owned by a retail provider that in fact may be used to serve native load, and therefore whose emissions should be attributed to the retail provider, not sales of surplus energy. Likewise, the PD (apparently inadvertently and unintentionally) would exclude "must take" mandatory power purchases from QFs and under the Renewable Power Standard (RPS) from the retail provider's retained emissions and instead average those emissions in the emissions value attributed to surplus sales.

The PD's exclusion of certain utility owned generation and mandatory power purchases from the calculation of a retail provider's overall emissions is contrary to the way retail providers manage and dispatch their resources during times of surplus energy. Resources are generally dispatched on an economic, least-cost basis, so that during period of low demand, the higher cost resources that are dispatched at the margin are the source of surplus sales at that time. Emissions from owned generation and "must take" purchases such as QFs and RPS renewables should be assumed to be serving native load. These resources should not be used to calculate the average emissions factor for surplus energy sales if they are not the marginal resources under a marginal resources analysis.

In order to address this issue, PG&E recommends that the PD be revised to allow retail providers to claim all owned generation and mandatory QF and RPS purchases as serving native load for emissions reporting purposes, based on a marginal resources analysis which documents the resources that are actually surplus. PG&E's recommended revised language is included in Attachment A to these comments.

IV. CONCLUSION

For the reasons stated above, the PD on interim reporting rules for the electricity sector under AB 32 should be revised as recommended by PG&E in these opening comments.

Respectfully Submitted,

CHRISTOPHER J. WARNER

By: /s/
CHRISTOPHER J. WARNER

Pacific Gas and Electric Company
77 Beale Street
San Francisco, CA 94105
Telephone: (415) 973-6695
Facsimile: (415) 972-5220
E-Mail: CJW5@pge.com

Attorneys for
PACIFIC GAS AND ELECTRIC
COMPANY

Dated: August 24, 2007

ATTACHMENT A

Proposed Electricity Sector
Greenhouse Gas Reporting and Tracking Protocol

1. Definitions and Covered Entities

1.1 Definitions

1.1.1 Asset-controlling Entity

"Asset-controlling entities" are entities that operate power plants or serve as exclusive marketers for certain power plants even though they do not own them.

1.1.2 Asset-owning Entity

An "asset-owning entity" is an entity that owns power plants. Asset-owning entities may include, but are not limited to, independent power producers, qualifying facilities (QFs), investor-owned utilities (IOUs), publicly owned utilities (POUs), state agencies, federal agencies, and community choice aggregators (CCAs).

1.1.3 Emission Factor

An "emission factor" is a ratio that reflects the level of emissions of a specified pollutant per unit of specified activity, e.g., pounds of carbon dioxide (CO_2) equivalent emissions emitted per megawatt-hour of electricity produced.

1.1.4 Exchange Agreement

An "exchange agreement" is an agreement, between electricity market participants that provides for an exchange of energy for energy. Exchange transactions do not involve transfers of payment or receipts of money for the full market value of the energy being exchanged, but may include payment for net differences due to market price difference between the two parts of the transaction or to settle minor imbalances.

1.1.5 Marketer

A "marketer" is an entity that buys and/or sells power but does not serve any end users.

1.1.6 Null Power

"Null power" is any electricity produced by a renewable electricity facility from which a renewable energy certificate has been unbundled and sold separately.

1.1.7 Point of Delivery

A "point of delivery" is a point on an electric system where a power supplier delivers electricity to the receiver of that energy. This point could include an interconnection with another system or a substation where the transmission provider's transmission and distribution systems are connected to another system. The last point of delivery is the location where the electricity sinks

1.1.8 Point of Receipt

A "point of receipt" is a point on an electric system where an entity receives electricity from a supplier. This point could include an interconnection with another system or generator busbar. For a power purchase or sale, the point of receipt is the location where the electricity enters the transmission grid.

1.1.9 Pacific Northwest

The Pacific Northwest region includes Washington, Oregon, Idaho, Montana, and British Columbia.

1.1.10 Power Plant

A "power plant" or "plant" is a facility for the generation of electricity which may be comprised of one generating unit, or more than one generating unit if (a) the units are at the same location, (b) each unit utilizes the same resource (fuel), and (c) all units are operationally dependent on each other[1].

1.1.11 Retail Provider

"Retail provider" means an entity that provides electricity to end users in California. Thus, "retail provider" includes electrical corporations (including IOUs, multi-jurisdictional utilities, and electric cooperatives), POUs (including municipalities, municipal utility districts, public utility districts, irrigation districts, and joint power authorities), electric service providers (ESPs), CCAs, and the Western Area Power Administration (WAPA).

1.1.12 Qualifying Facility

A cogeneration or small power production facility that meets certain ownership, operating, and efficiency criteria established by the Federal Energy Regulatory commission pursuant to the Public Utility Regulatory Policies Act.

---

[1] This definition differs slightly from the definition of a power plant in Public Utilities Commission Decision (D.) 07-01-039 (the Emission Performance Standard decision) and in the Emissions Performance Standard regulations adopted by the Energy Commission on May 23, 2007.

1.1.13 Southwest

The Southwest region includes Arizona, Nevada, Utah, Colorado, and western New Mexico.

1.1.14 Specified Sources

"Specified sources" are power plants whose electrical generation can be tracked due to full or partial ownership by the reporting entity, or due to its identification in a power purchase contract with the generator or marketer selling the power.

1.1.15 Unspecified Sources

"Unspecified sources" refers to the origin of purchases of electricity that cannot be tracked to a particular power plant. Most purchases from entities that own fleets of power plants such as independent power producers, utilities, and federal power agencies, and most purchases from marketers and brokers are purchases from unspecified sources.

1.2 Covered Entities

This Electricity Sector Greenhouse Gas Reporting and Tracking Protocol (Protocol) applies to every retail provider in California. Since WAPA sells a small amount of power to end users in California, it is a retail provider and, thus, is required to report under this Protocol. The California Department of Water Resources (DWR), and any other state agencies that generate or procure power, are required to report, using the Retail Provider Reporting Protocol, the power that they generate or procure to serve their own loads. Additionally, the Protocol applies to all marketers **and retail providers who own power and are the first entity to deliver or sell the power at a Point of Delivery in California, without regard to whether the marketer or retail provider serves end users in California.**~~that import power into or export power from California, meaning any marketer having possession of imported electricity at the first point of delivery in California or, for exported power, having possession of electricity at the last point of delivery in California prior to its export to another state.~~

The reporting requirements for retail providers are contained in Section 3 of this Protocol, and the reporting requirements for marketers are contained in Section 4 of this Protocol. Section 5 describes the process by which asset-owning or controlling retail providers or marketers may propose supplier-specific emission factors for their sales from unspecified sources.

In addition to any requirements imposed by this Protocol, power plants are required to report emissions using the source-based protocol (California Code of Regulations, Title 17, Subchapter 10, Article 1, sections 95100 to 95132).

2. Categories of Sources

For purposes of reporting greenhouse gas (GHG) emissions, the sources of power used to meet retail load can be broken down into two types: specified sources and unspecified sources, as defined above. Further subcategories of these two types are described below.

2.1 Specified Sources

Specified sources include, but may not be limited to, the following sources of power:

- Power plants that the reporting entity owns or partially owns as an equity partner.
- Federally-managed hydroelectric facilities, to the extent their power is allocated to a reporting entity.
- Qualifying facilities certified by the Federal Energy Regulatory Commission (FERC).
- Other cogeneration or combined heat and power facilities.
- Renewable sources that are tracked in Western Region Electricity Generation Information System (WREGIS).
- Other power plants that are identified in a power purchase contract with the generator or marketer selling the power.

Purchases made pursuant to a power purchase agreement from substantially identical collocated power plants with a single interconnection may be treated as a purchase from a specified source for the purpose of this Protocol.

2.2 Unspecified Sources

Power from unspecified sources includes, but may not be limited to, power from the following sources:

- Marketers that purchase or generate power from a variety of power plants or other electricity suppliers, and then resell the power to retail providers or other markets.
- The California Independent System Operator (CAISO), which runs a real-time balancing market for participating retail providers to adjust to short-term fluctuations in load. Beginning in 2008, the CAISO will launch the Integrated Forward Market (IFM), which will be a fully functional market where sellers and retail providers may bid loads and sources.
- Retail providers may also sell power on an unspecified basis.

3. Retail Provider Reporting Protocol

For each calendar year, retail providers shall comply with the reporting requirements in Subsections 3.1, 3.3, 3.5, 3.8, 3.10, and 3.12 . The other subsections in Section 3 describe how the California Air Resources Board (ARB) attributes GHG emissions to each retail provider.

3.1 Net Generation from Each Owned Power Plant

For each wholly-owned power plant, provide the plant name and ARB plant identification code.

For each partially-owned power plant that reports under ARB's source-based reporting program, provide the plant name and identification code, the proportional ownership share of the reporting entity, the quantity of net generation received by the reporting entity including transmission losses.

For receipts of electricity from power plants not reporting under ARB's source-based reporting system, provide the plant name and ARB identification code, the percentage ownership share of the reporting entity, the quantity of electricity generated by the power plant, the quantity of electricity received by the reporting entity, including transmission losses.

~~3.~~For each power plant, indicate whether the plant is used exclusively to serve native load. ~~One of the following three conditions must be met in order for a reporting entity to report a plant as exclusively serving native load:~~

~~3.The plant is a California eligible renewable resource and, prior to the reporting date, the reporting entity has retired the WREGIS certificates associated with the power received from the facility during the reporting year.~~

~~3.The plant is a low-cost, must-run resource, such as a hydro generation facility, that the reporting entity takes on an as-available basis.~~

~~3.The plant is a baseload plant running at a capacity factor of 60 percent or greater. If a plant is reported as serving native load on this basis, all owned or partially-owned facilities running at the same or greater capacity factor shall also be reported as serving native load.~~

~~For each plant reported as serving native load, the reporting entity shall indicate which of the three conditions is met.~~

3.2 Calculation of Emissions from Owned Power Plants

For wholly-owned and partially-owned power plants that report under ARB's source-based reporting system, ARB retrieves the emissions for all GHGs and the generation data transmitted to ARB under the source-based reporting system.

For power plants not reporting under ARB's source-based reporting system, ARB calculates emission factors using data from finalized reports under 40 CFR Part 75 or plant-level fuel consumption data from the Energy Information Administration if Part 75 data are not available.

ARB attributes emissions to the reporting entity based on its proportional ownership share (not the amount of electricity received).

In determining emissions related to sales from unspecified sources (see Section 3.11), ARB excludes generation from plants used to serve native load from the calculation of resources deemed to be available for wholesale sales.

3.3 Purchases and Exchanges from Specified Sources

For power purchased from each specified source that reports under ARB's source-based reporting program, or received from such a specified source under exchange agreements; provide the ARB plant identification code and the quantity of electricity purchased, including associated transmission losses.

For power purchased from each specified source not reporting under ARB's source-based reporting system, provide the plant name and identification code, and the quantity of electricity purchased, including associated transmission losses.

For each purchase from a renewable resource, indicate whether the power is null power.

If substitute energy accounts for more than 15 percent of the energy received under a plant-specific purchase agreement, report only deliveries from the specified source in this section. Report the substitute energy in the appropriate category in Section 3.5.

<u>For each power plant, indicate whether the plant is used exclusively to serve native load.</u>

~~For each purchase indicate whether one or more of the following conditions are met:~~

1. ~~The purchase is made through a purchase agreement that was in effect prior to January 1, 2008 and either is still in effect or has been renewed without interruption.~~

2. ~~The purchase is made through a purchase agreement from a power plant that became operational on or after January 1, 2008.~~

3.4 Calculation of Emissions for Purchases and Exchanges from Specified Sources

For each purchase from a specified source that reports under ARB's source-based reporting program ~~and meets one or more of the conditions specified in Section 3.3~~, ARB attributes emissions from these plants proportionately based on the share of net generation purchased.

For all other purchases from a specified source that meets one or more of the conditions specified in Section 3.3, ARB calculates emission factors using data from finalized reports under 40 CFR Part 75 or plant-level fuel consumption data from the Energy Information Administration if Part 75 data are not available, and attributes emissions based on the calculated emission factors and net generation purchased.

~~For each purchase from a specified source that does not meet one or more of the conditions specified in Section 3.3, ARB attributes emissions based on the net generation purchased and the default emission factor for the region in which the specified source is located, calculated as described in Section 3.6.~~

ARB attributes emissions for any purchase of null power based on the default emission factor of the region in which the null power was generated.

3.5 Purchases and Exchanges from Unspecified Sources

List all bilateral purchases of power and power received as part of an exchange agreement from unspecified sources, as measured at the first California point of delivery at which the reporting entity took possession of the power, aggregated by counterparty. For each counterparty, list the quantity of electricity received, including associated transmission losses, separately for each of the three resource regions defined in this Protocol (Northwest, Southwest, and California). ~~If there are any electricity purchases for which the region of origin cannot be determined, report these quantities as from "unknown region."~~ Receipt of power attributed to the Northwest or Southwest region must be verifiable via North American Electric Reliability Corporation (NERC) E-Tags. Separately, report the quantity of electricity purchased from the CAISO real-time market and any power purchased in the CAISO's Integrated Forward Market that is not under contract with specified counterparties.

3.6 Calculation of Emissions for Purchases and Exchanges from Unspecified Sources

For counterparties for which ARB has certified supplier-based emission factors (developed pursuant to Section 3.9 for retail providers and Section 4.3 for marketers), ARB multiplies the quantity of purchases and exchanges from each supplier, including transmission losses, by the certified emission factor.

For other purchases and exchanges, ARB sums the quantities of purchases and exchanges by region and multiplies the total by the default regional emission factor.

ARB calculates default emission factors, and accounts for transmission losses.

~~ARB attributes emissions to purchases reported as originating from an unknown region using the highest of the three regional default emission factors.~~

3.7 Total CO_2e Emissions from Owned Facilities and Purchases

ARB sums the total metric tons of emissions from owned power plants, purchases from specified sources, and purchases from unspecified sources as described in the above sections. ARB then converts the GHG emissions to CO_2 equivalents and calculates the total.

3.8 Sales and Exchanges from Specified Sources

Report the sum of sales and deliveries of power under exchange agreements from each power plant owned or operated by the reporting entity, identified by the plant identification code, and reported separately for each counterparty and destination region (California, Northwest, and Southwest). For each power plant that is owned but not operated by the reporting entity, report the portion of any sales made by the plant operator based on the reporting entity's ownership share of the power plant. Report quantities of power sold or exchanged as measured at the busbar where power enters the grid. If busbar data are not available for certain sales, report it as a sale from an unspecified source.

If sales and exchanges from an owned power plant amount to more than ten percent of the reporting entity's proportional ownership-based share of the total net generation of the power plant, the reporting entity shall provide documentation establishing why the power was sold. The reporting entity shall indicate whether either of the following conditions is met, with supporting documentation:

1. The power could not be delivered to the reporting entity during the hours in which it was sold.
2. The reporting entity did not need the power during the hours in which it was sold because it had surplus power from its owned power plants and the specified plant was the marginal plant during the hours in which the power was sold.

3.9 Adjustments to Total Emissions for Sales and Exchanges from Specified Sources to Counterparties within California

ARB adjusts the total emissions described in Section 3.7 for emissions attributed to sales from specified sources to counterparties within California.

To adjust total emissions for sales and exchanges from specified sources, ARB uses the emission rates of each plant either reported under the source-based reporting system or as calculated by ARB (see Section 3.2). However, if the reported sales and exchanges from an owned power plant amount to more than 10 percent of the reporting entity's proportional ownership share and if the purchase does not meet one or both of the conditions specified in Section 3.8, ARB attributes emissions to that power using the average emission factor of power available for sales from unspecified sources (calculated as described in Section 3.11).

ARB attributes emissions by multiplying each plant's sales and exchanges from specified sources to counterparties within California by the relevant emission factor. ARB then deducts the total emissions attributed to sales and exchanges from specified sources to counterparties within California from the totals described in Section 3.7.

3.10 Sales and Exchanges from Unspecified Sources

Report aggregated sales and power deliveries under exchange agreements from unspecified sources, reported separately for each counterparty and each destination region (California, Northwest, and Southwest). Report quantities as measured at the busbar. If busbar data are not available for certain sales, report the quantity as measured at the first point of receipt at which possession of the power was taken. In other words, these values shall not include any transmission losses that occur between the seller's point of receipt and purchaser's point of delivery.

3.11 Adjustments to Total Emissions for Sales and Exchanges from Unspecified Sources to Counterparties within California

ARB adjusts the total emissions described in Section 3.7 for emissions attributed to sales from unspecified sources to counterparties within California.

To obtain the quantity of power available for sales from unspecified sources, ARB deducts from the total amount of electricity from owned facilities and purchased quantities of power (including transmission losses) from the following sources:

1. Sources reported as serving native load, as described in Sections 3.1 **and 3.3, based on a marginal resource/economic dispatch analysis**.

2. Sales and exchanges from specified sources, as described in Section 3.8.

To obtain the amount of emissions associated with power available for sales from unspecified sources, ARB deducts from the total emissions from owned facilities and purchases, as described in Section 3.7, all emissions attributed to the sources in the itemized list above.

The average emission factor of power available for sales from unspecified sources is the ratio of the emissions from power available for sales from unspecified sources to the quantity of power available for sales from unspecified sources.

To adjust the total GHG emissions for sales from unspecified sources to counterparties within California, ARB multiplies the quantity of electricity sold from unspecified sources to counterparties within California, as measured at the generator busbar or reporting entity's point of receipt, by the average emission factors available for sales from unspecified sources. These quantities are deducted from the total emissions as described in Section 3.7 and adjusted as described in Section 3.9.

3.12 Reporting Requirements for Multi-jurisdictional Utilities and WAPA

Multi-jurisdictional utilities shall report the information required in Subsections 3.1, 3.3, 3.5, 3.8, and 3.10 for their operations that serve California and any contiguous service territories. They shall report California retail sales, in gigawatt-hours, and total retail sales in California and any contiguous territories.

WAPA shall report the information required in Subsections 3.1, 3.3, 3.5, 3.8, and 3.10 for its entire operations. WAPA shall also report California retail sales, in gigawatt-hours, and total retail sales.

3.13 Calculation of Emissions for Multi-jurisdictional Utilities and WAPA

For each multi-jurisdictional utility, ARB will determine emissions associated with the utility's entire operations, and will attribute a pro-rata share of those emissions, based on the ratio of California retail sales to total retail sales, to the California operations of the multi-jurisdictional utility.

For WAPA, ARB will determine emissions associated with WAPA's entire operations, and will attribute a pro-rata share of those emissions, based on the ratio of WAPA's sales to end users in California to total retail sales, to its California operations.

3.14 Requests for Exemptions

On a case-by-case basis, a reporting entity may request that ARB modify its determination of emissions to be attributed to the reporting entity based on the methodology set forth in Section 3. Such a request for exemption shall document why the reporting entity believes that the methodology in Section 3 does not recognize real reductions in GHG emissions that have been achieved due to the reporting entity's actions, and shall contain a proposed alternative determination of attributable emissions, with complete supporting documentation.

3.15 Sample Reporting Form[2]

Columns	1	2	3	4	5	6	7	8	9
Data Rows	**Section 1**	**Retail Load and Losses**							
1	Total Retail Load								
2	Total Load-Related Losses								
	Section 2	Owned Facilities							
	Plant Name	Plant Code	Net Gen	Power received	Losses	Proportional Ownership Share	~~Used Exclusively to Serve Native Load?~~Proportion serving Native Load	Qualifying Reason for Native Load	
3									
4									
	Section 3	**Specified Purchases**							
	Plant Name	Plant Code	Power received	Losses	~~Purchased Through Agreement Effective Prior to 1/1/08?~~	~~Purchase Through Agreement with Power Plant Oper. After 12/31/07~~	~~Purchase Through New Agreement with Plant Oper. Before 1/1/08~~		
5									
6									
	Section 4	**Unspecified Purchases**	**CAISO Market(s)**						

[2] Note that this sample form is for illustrative purposes only. It does not reflect all of the steps that may be necessary for reporting under this protocol.

	Market(s)	Power received	Losses						
7	**Real-Time Market**								
8	**CAISO Day-Ahead Market**								
9	**CAISO Integrated Forward Market**								
	Section 5	**Unspecified Purchases**	**Supplier Factor**						
	Supplier Name	Total Purchases at POD	Trans Losses	Purchases from NW, including losses	Purchases from SW, including losses	Purchases from CA, including losses	~~Purchases from Unknown Region, at POD~~	~~Estimated losses associated with unknown region~~	
10									
	Section 5	**Unspecified Purchases**	**No Supplier Factor**						
	Supplier Name	Total Purchases at POD	Trans Losses	Purchases from NW, including losses	Purchases from SW, including losses	Purchases from CA, including losses	~~Purchases from Undetermined Region~~		
11									
	Section 6	**Specified Sales**							
	Purchasing Entity	Plant Name	Plant Code	MWh sold to Northwest	MWh sold to Southwest	MWh sold in-state (California)	Sales Made by Plant Operator (Y/N)?	Proportional Ownership Share of Net Gen	
12									

	Section 7	**Unspecified Sales**								
	Purchasing Entity	MWh sold to Northwest	MWh sold to Southwest	MWh sold in-state (California)						
13										
	Section 7	**Claimed Resources**								
	Sum MWh, for plants claimed to serve native load in Section 2									
14										

4. Marketer Reporting Protocol

4.1 Imports

Report all imported of electricity with a final point of delivery in California that your firm had possession of at the first point of delivery inside California, summed separately for each counterparty supplying the power. For each counterparty, report the imported power separately for specified sources by the ARB plant identification code and for unspecified sources. Report unspecified sources summed by region of origin. The quantities of electricity shall be reported as measured at the first California point of delivery. Report transmission losses separately for each combination of counterparty and source.

Report any electricity wheeled through California that terminates in a location outside of California, as measured at the first California point of delivery. Report these receipts separately for each counterparty supplying the power. For each counterparty, report the wheeled-through power separately by region of origin (Nothwest or Southwest), and by each specified source or on a combined basis for unspecified sources. The quantities of electricity shall be reported as measured at the Point of Delivery. Report transmission losses separately for each combiniation of counterparty and region. These transactions must be verifiable via NERC E-tags.

4.2 Exports

Report all exports of electricity that your firm had possession of at the last point of delivery inside California, reported separately for each counterparty supplying the power. For each counterparty, report the exported power separately by each specified source and on a combined basis for unspecified sources, and by region of destination (Northwest or Southwest). The quantities of electricity shall be reported as measured at the last California point of delivery.

5. Supplier-based Emission Factors

Asset-owning or controlling entities may request that ARB develop and apply a supplier-specific emission factor for their sales from unspecified sources. An entity making such a request shall document that the power it sells originates from a fleet of plants either under its operational control or for which it serves as exclusive marketer and shall document the derivation of its proposed supplier-specific emission factor.

6. Submission Process

6.1 State Agency Responsibilities for Receiving and Maintaining Data

ARB is the lead agency for tracking and monitoring all emissions data relevant to implementation of Assembly Bill 32, so it is the primary recipient of reports. Reporting entities shall also provide simultaneous copies of submissions to the Public Utilities Commission and the Energy Commission, which will support ARB, as necessary, in verifying the data.

6.2 Frequency

Retail providers and marketers shall provide annual GHG emission reports, due to ARB as required by ARB reporting deadlines.

6.3 Verification

ARB has proposed using third-party certification and is developing a training and certification program for third party auditors.

6.4 Effective Date and Applicability

This Reporting Protocol and Tracking Protocol is effective January 1, 2008 and will be subject to updating and revision by the Air Resources Board after notice and an opportunity for public comment prior to the Board's issuance of its scoping plan for AB 32 on or before January 1, 2009. Until such update and revisions, entities that report under this Protocol are not deemed to be responsible for compliance with emissions limits or emission reduction measures merely because they are required to report hereunder.

(END OF ATTACHMENT A)