MODIFIED REGULATORY TEXT FOR 15-DAY PUBLIC COMMENT FOR THE AB 32 COST OF IMPLEMENTATION FEE REGULATION

Note: Shown below are the staff's proposed modifications to the originally proposed regulatory language set forth in Appendix A to the Staff Report: Initial Statement of Reasons, released August 31, 2011. Only those portions containing the modifications are included. This document is printed in a style to indicate changes from the originally proposed regulatory language. All originally proposed regulatory language is shown in underline to indicate additions and strikeout to indicate deletions. Staff's modifications made to this language are shown in double underline to indicate additions and double strikeout to indicate deletions.

AB 32 Cost of Implementation Fee Regulation

Modify section 95201(a)(1), section 95201(a)(1)(D), and section 95201(a)(4)(B), title 17, California Code of Regulations to read as follows:

§ 95201. Applicability.

- (a) This subarticle applies to the following entities. The terms used below are defined in section 95202.
 - (1) Natural Gas Utilities, Users, and Pipeline Owners and Operators that distribute deliver or use natural gas in California.
 - ((A) through (C) do not contain modifications intentionally omitted)
 - (D) All owners or operators of <u>interstate</u> <u>intrastate</u> pipelines that are not included in subsection 95201(a)(1)(A), that <u>distributedeliver</u> natural gas directly to end users. Fees shall be paid for each therm of <u>nautral</u> gas <u>distributeddelivered</u> directly to end users, except for natural gas delivered to electricity generating facilities.

(4) First Deliverers of Electricity.

(B) For electricity delivered in California on or after January 1, 2011, any owner or operator of a grid-dedicated, stand-alone electricity generating facility in California that delivers electricity to the California transmission and distribution system, and any electricity importer that is the purchasing-selling entity that delivers electricity at its to a first point of delivery located in California. Fees shall be paid for each megawatt-hour of net power generated by combustion of natural gas, coal or other fossil fuels (except California diesel) at a grid-dedicated.

stand-alone electricity generating facility in California, and reported pursuant to section 95112 of the Mandatory Reporting Regulation.

Fees shall also be paid for each megawatt-hour of imported electricity reported pursuant to section 95111 of the Mandatory Reporting Regulation if the electricity is from either unspecified sources or specified sources that combust natural gas, coal, or other fossil fuels (except California diesel). For multi-jurisdictional retail providers, fees shall be paid only for each megawatt-hour of wholesale sales delivered to a first point of delivery in California.

- 1. No fee shall be paid for any megawatt-hour of electricity that is not required to be reported pursuant to the Mandatory Reporting Regulation generated at any electricity generating facility that emits less than 10,000 metric tons of CO₂ from electricity generating activities during the report year.
- 2. No fee shall be paid for any megawatt-hour of renewable energy, nor for replacement electricity for variable renewable resources that meets the requirements for a zero emission factor pursuant to MRR section 95111 except that, for replacement electricity that has an emission factor greater than the default emission factor, the fee shall be paid based on the difference between the greater emission factor and the default emission factor.

Modify section 95202(a), title 17, California Code of Regulations, to read as follows:

[Note: Section 95202(a) contains many definitions. Shown below are only those definitions where modifications to the originally proposed language are proposed.]

§ 95202. Definitions.

(a) For the purposes of this subarticle, the following definitions shall apply:

(18) "California balancing authority" means a balancing authority with control over a balancing authority area primarily located in the State of California. A California balancing authority is responsible for the operation of the transmission grid within its metered boundaries which may extend beyond the geographical boundaries of the State of California.

(18 <u>22</u> <u>23</u>)"Carbon dioxide equivalent" or "CO₂ equivalent" or "CO₂ equivalent" means the number of metric tons of CO₂ emissions with the same global warming potential as one metric ton of another greenhouse gas. For the purposes of this subarticle, global warming potential values listed in Table A-1 of 40 CFR Part 98 are used to determine the CO₂ equivalent of emissions. a measure for comparing carbon dioxide with other greenhouse gases, based on the quantity of those gases multiplied by the appropriate global warming potential factor and commonly expressed as metric tons of carbon dioxide equivalents (MTCO₂E).

(30-31) "Cogeneration" means an integrated system that produces electric energy and useful thermal energy for industrial, commercial, or heating and cooling purposes, through the sequential or simultaneous use of the original fuel energy. Cogeneration must involve ensite generation of electricity and useful thermal energy and some form of waste heat recovery. Some examples of cogeneration include: (A) a gas turbine or reciprocating engine generating electricity by combusting fuel, and which then uses a heat recovery unit to capture useful heat from the exhaust stream of the turbine or engine; (B) steam turbines generating electricity as a byproduct of steam generation through a fired boiler; (C) Cogeneration systems in which the fuel input is first applied to a thermal process such as a furnace and at least some of the heat rejected from the process is then used for power production. For the purposes of this subarticle, a combined-cycle power generation unit, where all of the generated steam is used for electricity generation, is not considered a cogeneration unit.

(39) "Covered emissions" mean all emissions included in a compliance obligation under sections 95852 through 95852.2 of the Cap-and-Trade Regulation, regardless of whether the Cap-and-Trade Regulation imposes a compliance obligation for the data year.

- (43) "Direct delivery of electricity" or "directly delivered" means electricity that meets any of the following criteria:
 - (A) The facility has a first point of interconnection with a California balancing authority:
 - (B) The facility has a first point of interconnection with distribution facilities used to serve end users within a California balancing authority area;
 - (C) The electricity is scheduled for delivery from the specified source into a California balancing authority via a continuous transmission

- path from interconnection of the facility in the balancing authority in which the facility is located to a final point of delivery located in the State of California; or
- (D) There is an agreement to dynamically transfer electricity from the facility to a California balancing authority.

- (35 46 49) "Electricity importers" are marketers and retail providers that deliver held title to imported electricity. For electricity delivered between balancing authority areas, the electricity importer entity that holds title to delivered electricity is identified on the NERC E-tag as the purchasingselling entity (PSE) on the last segment of the tag's physical path, with the point of receipt located outside the State of California and the point of delivery located inside the State of California. For facilities physically located outside the State of California with first point of interconnection to a California balancing authority's transmission and distribution system, the importer is the facility operator or scheduling coordinator. Federal and State agencies are subject to the regulatory authority of ARB under this article and include Western Area Power Administration (WAPA), Bonneville Power Administration (BPA), and California Department of Water Resources (DWR). When PSEs are not subject to the regulatory authority of ARB, including tribal nations, the electricity importer is the immediate downstream purchaser or recipient that is subject to the regulatory authority of ARB- means an owner of electricity generated outside of California as it is delivered to the first point of delivery in California, for electricity having a final point of delivery in California.
- (50) "Eligible renewable energy resource" has the same meaning as defined in Section 399.12 of the Public Utilities Code.
- "Exported electricity" means electricity generated inside the State of (58)California and delivered to serve load located outside the State of California. This includes electricity delivered from a first point of receipt inside California, to the first point of delivery outside California, with a final point of delivery outside the State of California. Exported electricity delivered across balancing authority areas is documented on NERC e-Tags with the first point of receipt located inside the State of California and the final point of delivery located outside the State of California. Exported electricity does not include electricity generated inside the State of California then transmitted outside of California, but with a final point of delivery inside the State of California. Exported electricity does not include electricity generated inside the State of California that is allocated to serve the California retail customers of a multi-jurisdictional retail provider, consistent with a cost allocation methodology approved by the California Public Utilities Commission and the utility regulatory commission

of at least one additional state in which the multi-jurisdictional retail provider provides retail electric service.

(64-69)"Generated electricity" means electricity generated by an electricity generating unit at the reporting facility. Generated electricity does not include any electricity wheeled through the facility, i.e., electricity that is generated outside the facility and delivered into the facility with final destination outside of the facility.

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- (56 77) "Imported electricity" means electricity that is generated outside the State of California and delivered to a first point of delivery into serve load <u>located</u> inside the State of California. Imported electricity includes electricity delivered across balancing authority areas from a first point of receipt located outside the State of California, to the first point of delivery located inside the State of California, having a final point of delivery in California. Imported electricity includes electricity imported into California over a multi-jurisdictional retail provider's transmission and distribution system, or electricity imported into the State of California ever a from a facility or unit physically located outside the State of California with the first point of interconnection to a California balancing authority's transmission and distribution system. Imported electricity includes electricity that is a result of cogeneration located outside the State of California. Imported electricity does not include electricity wheeled through California, defined pursuant to this subsection which is electricity that is delivered into California with final point of delivery outside California. Imported electricity does not include electricity imported into the California Independent System Operator (CAISO) balancing authority area to serve retail customers that are located within the CAISO balancing authority area, but outside the State of California. with a final point of delivery in California. Imported electricity does not include:
 - (A) Power wheeled through California, which is power that is imported into California that terminates in a location outside of California; or
 - (B) Power transactions in which imported power is simultaneously exchanged for exported power.

(62 <u>84</u> <u>86</u>)"Marketer" means a purchasing_-/selling entity that <u>delivers electricity</u> <u>takes title to wholesale electricity</u> and is not a retail provider_, and that is the purchaser/seller at the first point of delivery in California for electric power imported into California, or the last point of receipt in California for power exported from California.

- (86 <u>109</u> <u>114</u>)"Purchasing_or_selling entity" <u>or "PSE"</u> means for purposes of this regulation anthe <u>functional</u> entity that is eligible to <u>purchases</u> or sells, and <u>takes title to energy</u> or capacity, and reserve transmission <u>reliability</u> related services. A PSE is identified on a NERC E-tag for each physical path segment.
- (110_115)"Qualified exports" means emissions associated with electricity that is exported in the same hour as imported electricity and documented by NERC E-tags. When imports are not documented on NERC E-tags, because a facility or unit located outside the State of California has a first point of interconnection with a California balancing authority area, the reporting entity may demonstrate hourly electricity delivery consistent with the record keeping requirements of the California balancing authority area, including records of revenue quality meter data, invoices, or settlements data. Only electricity exported within the same hour and by the same PSE importer as the imported electricity is a qualified export. It is not necessary for the imported and exported electricity (as defined in this subarticle) to enter or leave California at the same intertie. Emissions associated with qualified exports may be subtracted from the associated imports.

 Qualified exports shall not result in a negative compliance obligation fee liability for any hour.

(115) "Replacement electricity" means electricity delivered to a first point of delivery in California to replace electricity from variable renewable resources in order to meet hourly load requirements. The electricity generated by the variable renewable energy facility and purchased by the first deliverer is not required to meet direct delivery requirements. The physical location of the variable renewable energy facility busbar and the first point of receipt on the NERC E-tag for the replacement electricity must be located in the same balancing authority area.

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(94 <u>123</u> <u>127</u>)"Specified source <u>of electricity</u>" or "specified source <u>of power</u>" means a particular generatingfacility or unit or which is permitted to be claimed as the source of imported electricity delivered by an electricity importer. The reporting entity electricity importer must have either full or partial ownership in the facility/unit or a written power contract to procure electricity generated by that facility/unit. Specified facilities/units include cogeneration systems. Specified source also means electricity procured from an asset-controlling supplier recognized by the ARB.electricity generating facility in California or out of state to which electrical generation can be confidently tracked due to full or partial ownership by a first deliverer, or due to its identification in a power contract with a first deliverer, and also means an asset owning or asset controlling supplier.

(99 130 134) "Unspecified source of electricity power" or "unspecified source" means a source of electricity procured and delivered without limitation at the time of transaction to a specific facility's or unit's generation.

generation that cannot be matched to a particular specific facility or unit that generates electricity or matched generating unit or facility, or to an asset-owning or asset-controlling supplier. recognized by the ARB.

Unspecified sources contribute to the bulk system power pool and typically are dispatchable, marginal resources that do not serve baseload.

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(132) "Variable renewable resource" means run-of-river hydroelectric, solar, or wind energy that requires firming and shaping to meet load requirements.

Modify section 95203(b), section 95203(f), section 95203(j), and section 95203(m), title 17, California Code of Regulations to read as follows:

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(b) Common Carbon Cost.

The Executive Officer shall calculate a Common Carbon Cost (CCC), which represents the annual cost per MTCO₂ emitted. The CCC shall be calculated in accordance with the following formula:

CCC =

$$\frac{TRR}{(Q_{c} \times EF_{c}) + Q_{cc} + Q_{rga} + (Q_{ng} \times EF_{ng}) + (Q_{ag}) + (Q_{g} \times EF_{g}) + (Q_{d} \times EF_{d}) + (Q_{\underline{i}e} \times EF_{\underline{i}e}) + Q_{pe}}$$

Where:

TRR = Total Required Revenue, as specified in subsection 95203(a).

(Q_c x EF_c) = Statewide quantity of emissions from coal, or petroleum coke (Fee Regulation only), except that used in an electricity generating facility, calculated as the sum of:

 $(Q_b \times EF_b)$ = Quantity of bituminous coal $(Q_b) \times EF_b$ actor for bituminous coal (EF_b) ;

 $(Q_l \times EF_l)$ = Quantity of lignite coal $(Q_l) \times EF_l$ the emission factor (EF_l) for lignite coal;

 $(Q_a \times EF_a)$ = Quantity of anthracite coal $(Q_a) \times EF_a$ the emission factor (EF_a) for anthracite coal;

 $(Q_{sb} \times EF_{sb})$ = Quantity of subbituminous coal $(Q_{sb}) \times EF_{sb}$ (Q_{sb}) in the emission factor (EF_{sb}) for subbituminous coal;

 $(Q_{pc} \times EF_{pc})$ = Quantity of petroleum coke <u>(Fee Regulation only)</u> (Q_{pc}) x the emission factor (EF_{pc}) for petroleum coke <u>(Fee Regulation only)</u>

- Q_{cc} = Statewide quantity of emissions from catalyst coke <u>(Fee Regulation only)</u>, except that used in an electricity generating facility
- Q_{rga} = Statewide adjusted quantity of emissions from refinery <u>fuel</u> gas, except that used in an electricity generating facility
- Q_{ng} = Statewide quantity, in therms, of natural gas supplied for all uses except electricity generating facilities during the reporting period
- EF_{ng} = Emission factor of MTCO₂ for natural gas
- Q_{ag} = Statewide quantity of emissions from associated gas<u>(Fee</u> Regulation only)
- Q_g = Statewide quantity of gasoline supplied during the reporting period. This is the volumetric sum of California gasoline produced or imported into California and the amount of finished CARBOB product produced or imported into California. The finished CARBOB product is calculated as the volume sum of the CARBOB plus the maximum amount of oxygenate designated for each volume of CARBOB.
- EF_g = Emission factor of MTCO₂ for each supplied gallon of California gasoline.
- Q_d = Quantity of California diesel fuel supplied during the reporting period
- EF_d = Emission factor of MTCO₂ for each supplied gallon of California diesel fuel
- (Q_{ie} x EF_{ie}) = Quantity of emissions from <u>delivered all</u> electricity <u>delivered</u> in <u>California</u> as the sum of:

 $(Q_{sp} \times EF_{sp})$ = Quantity of MWh of electricity delivered from each specified source multiplied by the emission factor (MTCO₂ per MWh) for that specified source;

 $(Q_{u\underline{n}sp} \times EF_{u\underline{n}sp})$ = Statewide quantity of MWh of electricity delivered from unspecified sources multiplied by the default emission factor (MTCO₂ per MWh) for unspecified sources.

Minus

(Q_{qe} x EF_{geunsp}) = Quantity of MWh of qualified exports from each specified source multiplied by the default emission factor (MTCO₂ per MWh) for that specified unspecified sources.

<u>Minus</u>

(Q_{RPS} x EF_{unsp}) = Quantity of MWh generated by each California eligible renewable resource located outside the State of California, claimed by the reporting entity, included in the reporting entity's emission data report and meeting requirements pursuant to section 95852(b)(4) of the Capand-Trade Regulation multiplied by the default emission factor (MTCO₂ per MWh) for unspecified sources.

Q_{pe} = Quantity of process emissions from cement manufacturing.

(f) <u>Electricity Fee Rate for electricity delivered in California on or after</u> <u>January 1, 2011.</u>

The Executive Officer shall calculate an Electricity Fee Rate for each source of electricity delivered, and for qualified exports, in California, using the following formulas:

EFR_{sp} = CCC x EF_{sp} EFR_{aep} = CCC x EF_{aep} EFR_{unsp} = CCC x TL x EF_{unsp}

Where:

<u>"sp" denotes a specified source that is an electricity generating facility or unit</u>

"asp" denotes an asset-controlling supplier

"unsp" denotes an unspecified source

EFR_{sp} = The Electricity fee rate for the specified source

EFR_{sep} = The Electricity fee rate for the asset-controlling suppliers

<u>EFR_{unsp} = The Electricity fee rate for unspecified sources</u>

 EF_{sp} = Emission factor for specified source in MTCO₂e per MWh

EF_{aep} = Emission factor for asset-controlling suppliers in MTCO₂e per MWh

<u>EFunsp = .427 MTCO₂ per MWh, the Default eEmission fFactor for unspecified sources electricity imports for first points of receipt located in nonlinked jurisdictions, pursuant to ARB's Mandatory Reporting Regulation subsection 95111(b)(1).</u>

TL = Transmission loss correction factor

<u>TL = 1.02 to account for transmission losses between the busbar and measurement at the first point of receipt in California.</u>

<u>EFunsp</u> = 0 MT of CO₂e/MWh for <u>first</u> points of receipt located in linked <u>jurisdictions</u>.

(j) <u>Emission Factors for Asset-Controlling Suppliers and Multi-jurisdictional</u> <u>Retail Providers for Report Years 2011 and Subsequent Years.</u>

Emission factors for Asset-Controlling Suppliers and Multi-jurisdictional Retail Providers shall be the supplier-specific emission factors for Asset-Controlling Suppliers and Multi-jurisdictional Retail Providers published on the ARB Mandatory Reporting website calculated by ARB according to the methods in section 95111(b) of the Mandatory Reporting Regulation.

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(j m) Fee Liability for Delivered Electricity <u>Delivered in California</u>.

The Executive Officer shall calculate the fee liability for each entity reporting pursuant to section 95204(g) based on the quantity of electricity delivered <u>less ARB's calculated fee liability for qualified exports and RPS MWh specified below as QM_{RPS}</u>, as follows:

 $FS_i = \sum (EFR_d \times QM_d) - \sum (EFR_{geunsp} \times QM_{ge}) - \sum (EFR_{unsp} \times QM_{RPS})$

Where:

 FS_i = Fee for each entity (\$)

QM_d = Quantity of MWh of delivered electricity delivered in California from each specified source, asset-owning or asset-controlling supplier, or unspecified source, as appropriate

EFR_d = Electricity fee rate for electricity from each specified source, assetowning or asset-controlling supplier, or unspecified source, as appropriate

 Σ (EFR_{unsp} x QM_{ge}) = Sum of products for each hour in which the entity exports electricity

<u>EFR_{qe} = Electricity fee rate for electricity from qualified exports from each source</u>

QM_{qe} = Quantity of MWh from qualified exports from each source as the lower of either the quantity of exports or imports for the hour

QM_{RPS} = Quantity of MWh generated by each California eligible renewable resource located outside the State of California, procured by the reporting entity, registered with ARB pursuant to section 95111(g)(1) of the Mandatory Reporting Regulation and meeting requirements pursuant to section 95852(b)(4) of the Cap-and-Trade Regulation.

Modify section 95204(c)(3) and section 95204(d), title 17, California Code of Regulations to read as follows:

§ 95204. Reporting and Recordkeeping Requirements.

- (c) Timeline for Reporting.
 - (3) Each electricity importer required to report under this subarticle must submit a report for the 2011 and subsequent reporting years to ARB no later than June 1 of the following year, each year. Each facility owner or operator and fuel supplier required to report under this subarticle must submit a report for the 2011 and subsequent reporting years to ARB no later than April 10 of the following year and each year thereafter.
- (d) Natural Gas Utilities, Users and Pipeline Owners and Operators.
 - (1) All public utility gas corporations and publicly owned natural gas utilities operating in California must annually report the aggregate quantity of therms of natural gas delivered at the meter to <u>all</u> end users, <u>and including</u>

the aggregate quantity of therms of excluding natural gas delivered to electricity generating facilities.

(2) All owners or operators of intrastate pipelines that <u>distributedeliver</u> natural gas directly to end users must annually report the aggregate quantity of therms of natural gas directly <u>distributed delivered</u>, at the meter to <u>all</u> end users, <u>and including</u> the aggregate quantity of therms of <u>excluding</u> natural gas delivered to electricity generating facilities.

- (7) <u>The Executive Officer shall calculate the fee liability for Natural Gas</u>
 <u>Utilities, Users and Pipeline Owners and Operators based on reported data</u>
 <u>less ARB's calculated fee liability from deliveries to Electricity Generating</u>
 <u>Facilities which are customers of the supplier.</u>
- (8) For report years 2011 and subsequent years, the Executive Officer shall provide the Natural Gas Utility, User or Pipeline Owner and Operator a listing of all customers subtracted from the supplier's natural gas delivered, no later than September 1 of the corresponding fee determination notice fiscal year.